1950 INDEX TO THE OIL AND GAS JOURNAL

PUBLISHED AT TULSA, OKLAHOMA

Special Numbers

Review and Forecast Number	January 26
Refining Number	March 23
Natural-Gasoline Number	April 20
Geological Number	April 27
Natural-Gas Number	May 4
Gulf Coast Number	June 22
Midyear Review and Outlook Number	July 27
Pipe-Line Number	September 21
Drilling Contractors and Equipment Number	October 5
California Number	November 2
Petrochemical Report	November 9
A.P.I. Number	November 16
International Number	December 21

Contents of Index

Technical Articles on Engineering And Operating Subjects

- Drilling ..... Page 2
- Production ..... Page 4
- Refining ..... Page 7
- Pipe Line ..... Page 13
- Natural Gas ..... Page 16
- Natural Gasoline ..... Page 18
- Exploration ..... Page 19

General News, Shaping Industry Policy and Operations

- Economics ..... Page 20
- Trade Associations ..... Page 25
- Field Developments ..... Page 26
- Foreign ..... Page 30
- Maps ..... Page 33
- Personalities ..... Page 36

The List of Men Who Wrote for The Journal During 1950:

- Authors ..... Page 37

INDUSTRY-WIDE SCOPE—WORLD-WIDE COVERAGE

"Follow The Journal . . . and You Follow the Oil Industry"

933251

the OIL AND GAS JOURNAL — 1950 INDEX

Technical Articles on Engineering and Operating Subjects

Drilling

	Date	Page
ACTIVITY, DRILLING		
Florida Gets 12th Well	1-12	40
Big Drilling Program	1-19	44
37,414 Wells, 138 Million Feet Predicted for 1950 Drilling—Charles J. Deegan	1-26	174
Tabulation of Estimated Drilling Program Forecast for 1950 by States	1-26	175
New All-Time Record Set in Footage Drilled During 1949	1-26	176
Table of Total United States Well Completion Data by States	1-26	177
Table of Total Footage Drilled in United States by States by Years	1-26	179
Increased Rotary-Rig Efficiency Shown by 1949 Hole Figures—Roy F. Carlson	1-26	204
Two-Thirds of 1949 Completions Successful in Oil and Gas Research—Polly DeArmond	1-26	391
Critical Wildcats in Scurry County Area—D. H. Stormont	2-23	116
February Gains 436 Completions; Footage Up 2 Million Feet—Polly DeArmond	3-30	168
Independents Found 75 Per Cent of New Texas Gulf Fields in 1949	4- 6	53
Elk City Development Proceeding at Active Pace—Roy F. Carlson	4- 6	66
South Ceres Pool Only Two Wells Wide, Now 7½ Miles Long—Neil Williams	4-20	138
Tough Wildcat in Ethiopia	4-27	81
No Drilling Pickup in Foreign Areas	4-27	84
Pegasus and Meadow Fields, Midland and Upton Counties, West Texas—Frederick Shepherd and Malcolm E. Wilson, Jr.	4-27	140
Number of Well Completions and Footage Reach New Peak for Year—Polly DeArmond	4-27	243
Drilling in Western Nebraska—William L. Herschman	5- 4	146
Town-Lot Innovation at Long Beach	5-11	54
Wildcat Drilling in 1949—Frederic H. Lahee	5-11	70
Completions Gain 5.2 Per Cent, Footage 8 Per Cent, So Far This Year—Polly DeArmond	5-25	203
Active Rigs at Year's High	6- 1	39
New Midland Field—Roy F. Carlson and Carl F. Hoot	6-22	150
Progress Report on Weeks Island—E. G. Christianson	6-22	198
East Village Mills Field Currently a Gulf Coast Hot Spot—O. S. Hervey and Barrett E. Booth	6-22	200
112 Wells Drilled Below 12,000 Ft. in Gulf Coast Area in 1949—Lucy Dee Owen	6-22	244
Wildcatting in Florida—J. E. Banks	6-22	252
Caddo Lake Holds Distinction of Being Nation's First Marine-Drilling Operation	6-22	267
Current Tempo of Exploratory Drilling Indicates 1950 Will Chalk Up Another Record—Polly DeArmond	6-29	37
May Completions Set Record for Year; Over 12 Million Feet Drilled—Philip C. Ingalls	6-29	131
West Side of Permian Basin Gets Reef Production	7- 6	29
Drilling Development in Sussex Area Johnson County, Wyoming—E. Y. Long	7- 6	43
Dozen Rigs Now Running in Tex Harvey Field—Roy F. Carlson	7-13	97
Venezuelan Rig Report for May	7-20	64
Barinas Program Suspended	7-20	64
Systematic Development Program Followed by Canadian Gulf Oil Co., in Alberta's Stettler Oil Field P. C. Ingalls	7-20	70
Operators Foresee New All-Time Drilling Record—John C. Casper	7-27	170
20,256 Wells Finaled First Half to Set New All-Time Peak—Polly DeArmond	7-27	174
2,329 Rotary Rigs Operating in U. S., Western Canada—Neil Williams	7-27	177
June Completions and Footage Set New Record for Year—Polly DeArmond	7-27	377
Mexican Drilling Venture Starts—Dahl M. Duff	8- 3	32
Abqaiq—World's Largest Producer—Paul Reed	8- 3	42
Fort Chadbourne Field Scene of Active Drilling Program in West Texas—Roy F. Carlson	8- 3	48
Sholem Alechem Is Active Again—Philip C. Ingalls	8-10	77
Pegasus Drilling—Roy F. Carlson	8-17	80
Humble Fast Drilling	8-24	170
Wildcat May Give Oregon Its First Production—Polly DeArmond	9-14	67
35 Rigs Drilling in Ringwood Field—Joseph A. Kornfeld	9-14	84
Humble Sets Drilling Footage Record	9-21	176
Monthly Completion and Footage Marks Topped by Record August Activity—Philip C. Ingalls	9-28	143
Goose Creek Field Revival Results in 71 New Wells—Joseph A. Kornfeld	10-19	65
Wells and Footage Drilled First 9 Months Reflect Gains Over Last Year—Polly DeArmond	10-26	159
California Company's Wildcatting in "Virgin" Area in Pennsylvania Under Noses of Eastern Operators Adds Interest to Gas Discovery—Dahl M. Duff	11- 9	58
Maryland Gas Discovery Spurs Deer Park Structure Activity—Polly DeArmond	11-16	195
Over 200 Million Acres Leased	11-16	201
800-Well Drilling Program in California Planned by Shell Oil Co.; Shell Development Opens Expanded Laboratories—D. H. Stormont	11-30	44
Figures for Ten Months Indicate Fulfillment of Year's Forecast—Polly DeArmond	11-30	117
Oil Production Found in Cerro Sombrero Region of Chile	11-30	55
Nevada's Deepest Test Completed Dry at 10,314 Ft., But Gives Valuable Geologic Data; Idaho Activity Increasing—Polly DeArmond	12-14	63
Creole to Test Its Guanoco Concession	12-21	238
Mexican American Completes 18 Months of Operations—Bart W. Gillespie and J. Ralph Coleman	12-21	261
American Concern Planning an Active Drilling Campaign in Ecuador—Cecil V. Hagen	12-21	270
AGIP Accelerates Petroleum Activities in Italy	12-21	280
Substantial Increase Shown in Foreign Rotary Rigs Operating—Dahl M. Duff	12-21	294
Wildcatting and Refinery Modernization Highlight Activity in Trinidad	12-21	296
1950 Looms As Best Drilling Year in the Industry's History—Polly DeArmond	12-28	122
BARGES (see Offshore)		
BITS (see Equipment; Practices)		
BLOWOUTS; FIRES; WILD WELLS		
Blowouts in California Drilling Operations Causes and Suggestions for Prevention—A. J. Horn	7-27	289
CASING		
Casing-Leak Problems—H. N. Lyle	2- 9	78
Allowable Loads on Unsupported Casing Column Under Action of Horizontal Wave Forces and Vertical Well-Head Loading—J. A. Reed, II, and H. H. Meredith, Jr.	10-19	80
What Do You Know About Surface-Casing Failures?—B. B. Smith	10-26	78
CEMENTING		
Time Factor in Cementing—Bruce Barkis	1-12	74
Pumping Rates in Squeeze Cementing—George C. Howard and C. R. Fast	5-25	120
Use of Bottom Plug in Cementing Operations—Howard F. Hopkins	6-22	308
Texas Commission Adopts New Cementing Rule to Conserve Pipe	11-23	49
COMPLETIONS (also see Production)		
Completion and Production Techniques in Unconsolidated Sands—J. A. Perkins, Jr.	8-24	113
Average Completion Cost Is 20 Per Cent of Total Well Cost—T. A Huber, T. O. Allen, and G. F. Abendroth	11-16	234
CORING (for core analysis, see Production)		
Resistivity and Saturation Distribution in Invaded Zones of Porous Formations—Dr. Leendert de Witte	7-27	246
Electric Correlation Drilling in the Rocky Mountains—N. C. Surber and E. R. Sims, Jr.	9- 7	86
Optimum Use of Coring, Electric Logging, and Other Testing Methods in Exploratory Wells—John E. Walstrom	11-16	298
COSTS		
Economics of Contract Drilling in California—R. A. Powell	6- 8	65

	Date	Page
What It Takes to Drill a $750,000 Wildcat (2-page drawing showing men, materials, and equipment necessary for a 10,000-ft. exploratory well)	10- 5	136
What It Takes to Drill a $75,000 Wildcat in Scurry County	10- 5	138
Average Completion Cost Is 20 Per Cent of Total Well Cost—T. A. Huber, T. O. Allen, and G. F. Abendroth	11-16	234
DEEP WELLS		
United States Drilling Depth Records, by States	1-26	183
Mississippi Wildcat Now Deepest Gulf Coast Well	6-15	73
Progress Report on Weeks Island	6-22	198
New Producing Depth Record Looms	12-14	62
DEEPENING (see Practices and Reconditioning)		
DRILL PIPS (see Equipment; Practices)		
ECONOMICS (see specific heads)		
EQUIPMENT (also see Practices, other specific subjects)		
Army Teaches Oil Industry New Tricks in Getting From Here to There—Leigh S. McCaslin, Jr.	1- 5	44
New Medium Rig Features Mobile Console Control Unit—Roy F. Carlson	2-16	90
New Logging Method—Charles J. Deegan	3- 2	23
New Drilling Methods and Equipment—Earle C. Hellums	3- 2	50
Test Model of Rotary-Percussion Drill, Found Successful in Shop Experiments—Kenneth B. Barnes	3- 9	49
Bassinger Drill Ready	3- 9	49
Factors Affecting Rate of Penetration of Rock Bits—W. J. Bielstein and George E. Cannon	3-30	102
Carriage Aids Moving of Blowout Preventer	3-30	122
Tool Is Designed to Save Earthquake-Damaged Wells—D. H. Stormont	4-13	58
Big Steam Rig on 14,000-ft. Magnolia Well Runs 90-Day Test on Water-Tube Boilers—Leigh S. McCaslin, Jr.	4-13	84
Automatic Weight Control—Roy F. Carlson	4-27	170
Pipe Racks and Mud Ditches Redesigned to Increase Efficiency of Drilling Rig	5-11	91
Mobile Exploration Rig for Offshore Work—J. R. Pemberton and Hillman A. Hansen	5-18	122
Diamond Drilling Operations—Joseph J. Sanna	5-18	129
Dollar Savers in Drilling—Compiled by Leigh S. McCaslin, Jr.	5-25	157
Use of Tubing As Drill Pipe—W. F. Bates	6- 1	54
Barnsdall Sells Rigs	6-22	157
Portable "Supply Store" for Drilling Rigs	6-29	63
Canopy Frame for Drilling Rigs	6-29	64
New Remote-Control Rig—Roy F. Carlson	6-29	74
Brewster's New Rig Designed for 15,000-ft. Plus Drilling—J. T. Carmichael	8-24	152
1,000 Oil Men View Rig Unveiled at Shreveport	8-24	154
Deep Rotary Drilling	10- 5	142
New Portable Drilling Mast Features Operational Visibility, Clear Floor Space, and Unique Method of Raising and Securing Mast—Roy F. Carlson	10- 5	190
Gaskets for the Oil Industry—H. H. Dunkle	10- 5	194
New Portable Derrick Erects Quickly to Floor Level	10- 5	248
Fatigue Testing . . . and Development of Drill Pipe-to-Tool Joint Connections—William S. Bachman	10-19	109
California Is Headquarters for Important Oil-Country Equipment Suppliers	11- 9	A-67
Gulf Refining Co. to Use New Submersible Tank Battery	12- 7	62
MAINTENANCE (see Practices)		
MUDS, MUD PRACTICES AND SYSTEMS		
A Study of Limed Mud Systems—William C. Goins, Jr.	1-19	52
Lime-Base Muds . . . A Progress Report—Jack L. Battle and Preston E. Cheney	3-16	81
Revised Mud System Features Unusual Design Innovations	7-20	102
Mud Materials As Tools for the Drilling Industry—Orien W. Van Dyke	7-27	220
Resistivity and Saturation Distribution in Invaded Zones of Porous Formations—Dr. Leendert de Witte	7-27	246
Resistivities and Fluid Contents of Porous Rocks—Dr. Leendert de Witte	8-24	120
The Properties of Lost-Circulation Materials—C. W. Dougan and C. H. Low	9- 7	82
Don't Lose Your Hole Because of Slush-Pump Failure—W. J. Redman	11- 2	84
Lost-Circulation Materials and Mud Additives—Roy F. Carlson	12-28	64
OFFSHORE		
Industry Now Recovering But $1 for $10 Invested in Gulf—Leigh S. McCaslin, Jr.	1- 5	32
Shell's Marine Rig No. 10—Leigh S. McCaslin, Jr.	1-12	55
New Orleans Offshore Operations Base	1-19	36
West Coast Deep-Water Drilling—Robert Harwick	1-26	161
Leasing Rule Changes Expected After Huntington Beach Offer	2- 2	29
Williams Drilling Co.'s New 8,000-ft. Submersible Drilling Barge—Leigh S. McCaslin, Jr.	2- 9	67
Design of Offshore Drilling Structures—A Symposium . . . The Operator's Committee	2-23	135
Gulf Hurricane and Consequent Damage to Ohio Oil Co.'s Offshore Drilling Platform in Texas Gulf Waters—R. C. Farley and J. S. Leonard	2-23	136
Offshore Drilling Platforms—C. Glenn Cappel	2-23	142
An Insurance Counselor's Views on Offshore Risks—J. Everett Pike	2-23	146
Stanolind Platform Also Tested in Gulf of Mexico Hurricane—Benjamin K. Ayers, Jr.	2-23	150
New, Safer Specifications Will Result From Experience in 92-M.P.H. Blow—M. B. Willey	2-23	152
Oceanographic and Meteorological Factors—Dr. Irving P. Krick	2-23	154
World's Largest Diesel-Electric Drilling Barge	3- 9	68
Offshore Activity—Leigh S. McCaslin, Jr.	3-30	62
Offshore Oil Problems to Be Studied in New Center—Leigh S. McCaslin, Jr.	4-13	61
Cathodic Protection of Fourteen Offshore Drilling Platforms—E. P. Doremus and G. L. Doremus (N.A.C.E. Abs.)	4-27	192
Mobile Exploration Rig for Offshore Work—J. R. Pemberton and Hillman A. Hansen	5-18	122
Wave, Tide, Current, and Hurricane Problems in Coastal Operations—A. H. Glenn	6-22	174
Sun's Seadrome for Offshore Drilling—Edward R. Armstrong	6-22	192
Ocean Waves and Marine Oil Operations—Dale F. Leipper	6-22	214
Status Report on Offshore Drilling in Louisiana—A. L. Vitter, Jr.	6-22	221
Cathodic Protection Goes Offshore—E. P. Doremus and G. L. Doremus	6-22	222
First Offshore Well in Germany	7-20	60
Protection for Existing Tidelands Leases is Provided in Senate Resolution	7-27	156
Deep-Water Rig Moves and Drills in Water Shallower Than Vessel Draft—G. E. McClatchey	8-10	70
General Petroleum Corp. Reuses Old Holes in Offshore Drilling—D. H. Stormont	8-24	98
Louisiana Offshore Oil May Yield 6,000,000 Bbl. Next Year	9-14	68
Texaco's Drilling Barge Gibbens—Leigh S. McCaslin, Jr.	9-28	72
Among Those Inspecting Texaco's New Barge Drilling Unit	9-28	76
Marine Operations As Typified by West Lake Verret Field in Louisiana	10-12	80
Rowan's New Drilling Barge Designed for Economy of Operation	10-12	113
Allowable Loads on Unsupported Casing Column Under Action of Horizontal Wave Forces and Vertical Well-Head Loading—J. A. Reed, II, and H. H. Meredith, Jr.	10-19	80
Gulf Refinig Co. Leases Area in Mobile Bay	10-26	64
Humble Making Hole With World's Most Powerful Barge-Mounted Rig—Leigh S. McCaslin, Jr.	11-30	66
Marine Platforms for Offshore Drilling—C. A. Trexel	12- 7	76
Seaplane Used in Offshore Work by California Co.	12-14	56
Tidelands Legal Proceedings Ended by U. S. Supreme Court	12-14	63
OPERATING IDEAS (also see Practices)		
Hard-Facing Tool Joints	1-19	77
Unitized Shale Shaker Saves Rig-Up Time	4-20	242
Fabricated Steel Walkways Provide Drilling-Rig Safety and Convenience	6-15	117
Portable Unitized Panel	6-15	120
Simple Vise Table	6-15	120
Skids Facilitate Handling of Large Blowout Preventers	6-15	120
Packing, Replacing Costs Saved by Small Oil Pump	6-15	120
Sample Dryer	6-29	87
Combination Pipe Rack	6-29	87
Foundation for Side Movement	6-29	87
Crane for Handling Heavy Tools	7-20	107
Pipe Supports for Drilling Rig	7-20	107
Test Head for Pipe-Line Construction	7-20	107
Control Valve Extension	7-20	107
Three Time-Saving Ideas in Rigging Up	8-10	85
Stairways Used as Carrying Devices in Rig Moves	8-17	119
Welding Unit in Connection With Light Plant	8-17	119
Stationary Mounting Used for Engine Exhaust	8-17	119
Traveling Platform Facilitates Greasing	8-17	119
Tool Rack Is Convenient Mount for Warning Bells	9- 7	96
Collapsible Stairs Speed Rigging Up, Tearing Down	9- 7	96
Oil Drums Used to Quiet Drilling-Engine Exhausts	9- 7	96
Protection Provided for Wash-Down Hose	11- 9	A-97
PRACTICES		
Recent Canadian Oil Developments—J. D. Gustafson	1- 5	63
New Logging Method—Charles J. Deegan	3- 2	23
New Drilling Methods and Equipment—Earle C. Hellums	3- 2	50
Freezing Plugs in High-Pressure Wells by Means of "Dry Ice"—I. A. Miller	3-30	95
Factors Affecting Rate of Penetration of Rock Bits—W. J. Bielstein and George E. Cannon	3-30	102

	Date	Page
Big Steam Rig on 14,000-ft. Magnolia Well Runs 90-Day Test on Water-Tube Boilers—Leigh S. McCaslin, Jr.	4-13	84
Porosities Can Be Obtained From Radioactivity Logs in West Texas—R. E. Bush	4-27	153
Pipe Racks and Mud Ditches Redesigned to Increase Efficiency of Drilling Rig	5-11	91
Diamond Drilling Operations—Joseph J. Sanna	5-18	129
Use of Tubing As Drill Pipe—W. F. Bates	6- 1	54
Shot Holes Drilled With Air Avoid Need for Water—Roy F. Carlson	6-22	151
Portable "Supply Store" for Drilling Rigs	6-29	74
New Remote-Control Rig—Roy F. Carlson	6-29	74
Resistivity and Saturation Distribution in Invaded Zones of Porous Formations—Dr. Leendert de Witte	7-27	246
Blowouts in California Drilling Operations Causes and Suggestions for Prevention—A. J. Horn	7-27	289
Use of Solid Explosives in West Texas—Roy F. Carlson	8-31	62
New Penetration Curve—Joseph A. Kornfeld	9-28	102
Census of Rotary Drilling Contractors	10- 5	134
Drilling Trends	10- 5	140
Deep Rotary Drilling	10- 5	141
Rotary Percussion Drilling . . . A Review and a Prediction—Ross Bassinger	10-12	111
What Do You Know About Surface-Casing Failures?—B. B. Smith	10-26	78
What Do You Know About Drill-Collar Failures?—Stanley C. Moore	10-26	79
Don't Lose Your Hole Because of Slush-Pump Failure—W. J. Redman	11- 2	84
Shell Redesigns Coastal Reconditioning Shops	11- 9	A-91
Thread Compounds for Casing to Be Used on Trial Basis	11-23	45
Union Pacific Studies Methods of Designing Wells to Prevent or Minimize Damage from Earthquakes—D. L. Roberts	11-23	62
Shot-Hole Unit Utilizes Air Instead of Mud, Water	12- 7	60
Marine Platforms for Offshore Drilling—C. A. Trexel	12- 7	76
Selection, Care, Installation of Antifriction Bearings—J. A. Trail	12- 7	94
California Research Corp. Investigates Completion Methods, Drilling-Fluid Effects with Experimental Rig—D. H. Stormont	12-14	61
RECONDITIONING WORK (also see Practices)		
Contracts Let to Redrill Damaged Long Beach Wells	2- 2	81
RIGS—(see Practices)		
"RUNNING HIGH" (writeups of drilling contractors)		
Keating Drilling Co., Tulsa	1-26	370
Mohawk Drilling Co., Oklahoma City	2- 2	83
Parker Drilling Co., Tulsa	2- 9	112
B.B.M. Drilling Co., Houston	2-16	146
Jones-Simpson Drilling Co., Dallas	3- 2	100
Mac Drilling Co., Houston	3-16	126
Thompson-Carr, Inc., Houston	6- 8	100
Falcon Seaboard Drilling Co., Tulsa	9-21	385
Portable Drilling Corp., Tulsa	10-12	143
Fleet Drilling Co., Ada, Okla.-Dallas	11-30	100
SAFETY—		
New, Safer Specifications Will Result From Experience in 92-M.P.H. Blow—M. B. Willey	2-23	152
Play It Safe in Drilling	10- 5	230
Safety Color Code for Drilling Rigs	10- 5	254
SALES OF PROPERTIES		
28,000 Acres Sold in Scurry County—Carl F. Hoot	1-19	41
Wentz Properties Sold	6- 1	33
Barnsdall Sells Rigs	6-22	157
TIME: RATE (also see Practices)		
Factors Affecting Rate of Penetration of Rock Bits—W. J. Bielstein and George E. Cannon	3-30	102

Production

	Date	Page
ACID TREATMENT		
Acidization in the Permian Basin—Bill R. Weaver	3- 9	73
CHEMISTRY		
Penn State Prepares Capillary-Flow Film	9- 7	81
CLEANING OUT (see Reconditioning, also under DRILLING)		
COMPLETIONS, GENERAL (also see DRILLING)		
Gas-Oil-Ratio Repair and Control . . . in West Texas and New Mexico—T. B. Lambert and R. M. Hippard	3-30	86
Effect of Temperature, Pressure, Standoff Upon Perfo-Jet Penetration—J. E. Reed and F. F. Carr	8- 3	69
Osage Revival Comes With Modern Well-Completion and Water-Flood Techniques—Kenneth B. Barnes	8-24	95
Completion and Production Techniques in Unconsolidated Sands—J. A. Perkins, Jr.	8-24	113
New Oriskany Sand Gas Pool—Q. L. Wilcox	11-23	91
COMPRESSORS (also see GAS)		
Floating Compressor Plants—J. D. Goodrich	6- 1	62
CONNATE WATER (see Interstitial Water)		
CONSERVATION (also see Pressure Maintenance; Unitization, etc.)		
Natural Gasoline Industry Indispensable to Conservation Movement—John F. Lynch	4-20	154
Automotive Designers Can Aid in Conservation—James W. Vaiden	4-20	155
35 Operators Plan Big Gas-Conservation Project	7-13	49
Humble Gas Conservation Plant Outlined	9-21	177
Texas Commission Will Attempt to Bring About Oil-Conservation in Individual Oil Fields—Joseph A. Kornfeld	10- 5	126
Humble Completes Last of 32 Gas Conservation Projects	10-19	64
Industry Won't Have to Defend Depletion-Allowance System Again for Several Years, Congressman Tells Oil, Gas Group—Leigh S. McCaslin, Jr.	11- 9	54
Oil Conservation in California	11- 9	A-65
Lawyer Says Capture Rule Can Be Set Aside by Court	11-16	187
Humble President Says Present Depletion Set-Up Successful	11-16	187
Advocation of Federal Regulation of "End Use" of Oil and Gas Endangers State Conservation, Shivers Tells Compact—Leigh S. McCaslin, Jr.	12-14	58
CORE ANALYSIS		
Shell's Core Analysis Program	1- 5	30
Porosities Can Be Obtained From Radioactivity Logs in West Texas—R. E. Bush	4-27	153
CORROSION (also see PIPE LINE, NATURAL GAS, REFINING, and NATURAL GASOLINE)		
Tubing Corrosion—John G. Yapuncich	4- 6	68
Corrosion in Condensate and in High-Pressure Sweet-Oil Wells—R. C. Buchan (N.A.C.E. Abs.)	4-27	192
Developments in Corrosion Prevention in West Texas—H. D. Murray and W. H. Crenshaw	4-27	166
Corrosive Environments and Methods of Mitigation in Producing Sour Crude—D. A. Shock and J. D. Sudbury	6- 8	73
The Fundamentals of Galvanic Corrosion—A. B. Lauderbaugh	8-17	97
CYCLING (also see Pressure Maintenance)		
Some Theoretical Aspects of Cycling (Part 1)—Morris Muskat	1-19	55
New Gas-Injection Production Method	2- 2	31
Some Theoretical Aspects of Cycling (Part 2)—Morris Muskat	2- 2	53
DISTILLATE FIELDS (see Cycling)		
ECONOMICS (see specific heads, and ECONOMICS)		
ELECTRIC LOGGING, PILOTS; MEASURING INSTRUMENTS		
Cheap, Fast Electric Logs—Charles J. Deegan	2- 9	76
The Microlog—H. G. Doll	3- 2	62
Trends in Electric Log Interpreting	6- 1	109
East Village Mills Field Currently a Gulf Coast Hot Spot—O. S. Hervey and Barrett E. Booth	6-22	200
Resistivity and Saturation Distribution in Invaded Zones of Porous Formations—Dr. Leendert de Witte	7-27	246
New Method of Dip Logging	10-19	151
Optimum Use of Coring, Electric Logging, and Other Testing Methods in Exploratory Wells—John E. Walstrom	11-16	298
Well-Site Interpretation of Electric Logs—H. N. Lyle	11-23	77
EMULSIONS (also see Treating)		
Heating System for Treating Plant	6- 1	61
ENGINEERING FUNDAMENTALS (a series on petroleum reservoirs by Dr. John C. Calhoun, Jr., head of Petroleum Engineering Dept., Univ. of Oklahoma)		
393. Flow Capacities of Wells	1- 5	75
394. Pressure Parting of Formations	1-12	85
395. Change in Well Capacity With Permeability	2- 2	73
396. Changing Well Capacity by Fluid Saturation Change	3-16	113

	Date	Page
397. Change of Well Capacity With Filtration	3-23	349
398. Change in Gas Flow With Pressure	3-30	125
399. Permeability; Clay Content	4- 6	95
400. Sources of Reservoir Data	4-13	115
401. Coring and Sampling	4-20	261
402. Coring to Obtain Fluid Saturations	4-27	205
403. Permeability, Porosity Variations	5- 4	155
404. Histograms of Permeability	5-11	105
405. Permeability Distribution Arrangements	5-25	163
406. Comparison of Permeability Distributions	6- 1	85
407. Permeability Capacity Distribution	6- 8	87
408. Porosity Variations	6-15	123
409. Core Data	6-29	91
410. Performance of Parallel Reservoirs	7- 6	71
411. Heterogeneous Solution-Gas-Drive Reservoir	7-13	103
412. Solution-Gas-Drive Performance and Oil Viscosity	7-20	111
413. Variations in Field Relative Permeability Curves	7-27	339
414. Case Histories and K_g/K_o Curves	8-24	179
415. The Water Transition Zone	8-31	89
416. Resistivity Change Through a Water Transition Zone	9- 7	99
417. Gravity Drainage	9-14	131
418. Effect of Gravity Drainage	9-21	371
419. Further Evidences of Gravity Control	9-28	105
420. Gravity Drainage and Capillarity	10-12	123
421. Estimation of Effect of Gas Cap or Gas Reinjection	10-19	129
422. Gas-Cap Expansion and Calculation	10-26	117
423. Summary of Gas-Drive Predictions	11- 2	97
424. Drainage Across a Reservoir	11- 9	179
425. Reservoir Water	11-16	367
426. Water-Oil Ratios	11-23	97
427. Water Encroachment	11-30	91
428. Estimation of Water Influx	12- 7	113
429. Variations of Material Balance	12-21	335
430. Gas and Water Coning	12-28	87
EQUIPMENT (also see other headings)		
New Production Methods and Equipment	3- 2	54
Subsurface Pressure-Temperature-Flow Conditions Recorded on a Single Run—D. H. Stormont	4-13	90
Nine Fully Automatic Leases Installed in East Texas Field—W. T. Nance and J. M. Payne	8-10	58
Here's the What, When, Where, Who of Flanges—O. L. Lewis	8-17	88
Radio Use in Petroleum Operations Doubles in Past Year—George Weber and Leigh S. McCaslin, Jr.	8-24	91
Electrical Equipment Installations for Pumping in Smackover Field, Arkansas—W. C. Best	9- 7	64
Nondestructive Inspection Locates Minute Surface Cracks, Flaws in Metals—D. H. Stormont	9- 7	69
New Plug Seal Nipple Makes Possible Simplified, Economical Christmas Trees—Jay P. Gould	9-28	81
Gaskets for the Oil Industry—H. H. Dunkle	10- 5	194
California Is Headquarters for Important Oil-Country Equipment Suppliers	11- 9	A-67
GAGING (see Gathering)		
GAS (see GAS)		
GATHERING; LINES; SYSTEMS; METERING		
Subsurface Oil-Well Flow Meter—M. Stephenson	5-11	96
Plymouth's Operations at Benedum—Roy F. Carlson	11-23	66
INTERSTITIAL WATER		
Capillary-Pressure Method of Interstitial Water Determination and Related Topics—Walter Rose	10- 5	212
MAINTENANCE (also see specific subjects)		
Casing-Leak Problems—H. N. Lyle	2- 9	78
Job Design—John E. Daxon and Roger Filson	5-25	106
Nondestructive Inspection Locates Minute Surface Cracks, Flaws in Metals—D. H. Stormont	9- 7	69
Selection, Care, Installation of Antifriction Bearings—J. A. Trail	12- 7	94
METERING (grouped with articles listed under Gathering)		
MUDS (see DRILLING)		
OFFSHORE (see this heading under DRILLING)		
OPERATING IDEAS (also see other specific subjects)		
New Production Methods and Equipment	3- 2	54
Induflux . . . New Method for Testing Fatigue in Sucker Rods—D. H. Stormont	3-16	84
Job Design—John E. Daxon and Roger Filson	5-25	106
Heating System for Treating Plant	6- 1	61
Safety Guard for Driving Pulley	6- 1	73
"Unitized" Test Separator	8- 3	64
Track Made of Tubing Simplifies Racking	9- 7	96
Two Methods of Conditioning Soil for Engine Foundations	11- 9	A-95
Tool Table Makes Rod Pulling Easier	11- 9	A-97
PACKERS (see Completions)		
PARAFFIN		
Flowline Paraffin Removal—D. H. Stormont	2-16	91
PERFORATING (see headings on Completion under DRILLING and PRODUCTION)		

	Date	Page
PETROLEUM ENGINEERING SCHOOLS (Continuation of a series prepared by The Oil and Gas Journal)		
20. Los Angeles Harbor Junior College	11- 9	A-90
PRESSURE MAINTENANCE		
Water Injection Planned	2- 9	55
Oil Recovery by High-Pressure Gas Injection—L. P. Whorton and W. L. Kieschnick, Jr.	4- 6	78
Central Control of a Gulf Coast Pressure-Maintenance Project—C. K. Brown and W. D. Mason, Jr.	6-22	206
North Cowden, One of Nation's Largest Gas-Injection Projects, Now in Operation—N. H. Rahmes	7-20	74
Increased Oil Recovery From Injection Operations—R. L. Evans and R. P. Roe	9-28	68
Gas-Injection Plant to Be Built at Willamar	10-19	65
Coalinga Nose Unit to Be in Full Operation by First of Year—D. H. Stormont	11-23	51
PRORATION (see articles listed under individual states under FIELD DEVELOPMENTS)		
PUMPING		
Dynamometer Charts and Well Weighing—L. W. Fagg	1-12	65
Estimate of 1950 Artificial Lift Installations by States—Kenneth B. Barnes	1-26	242
Power Factor Correction on a Pumping Lease—E. H. Lamberger and R. A. Swindell	2- 9	71
New Insert-Type Oil-Well Pump Undergoing Tests—Prof. C. M. Davis	2-16	108
Induflux . . . New Method for Testing Fatigue in Sucker Rods—D. H. Stormont	3-16	84
Richfield Uses Unitized Manifolds for Hydraulic Pumping at Wilmington	4-20	247
Pumping Deep Wells—H. E. Allen, F. M. Beal, and R. C. Curtis	5-18	134
Electrical Equipment Installations for Pumping in Smackover Field, Arkansas—W. C. Best	9- 7	64
RECONDITIONING (also see DRILLING)		
Research on Shooting Oil and Gas Wells—B. F. Grant, W. I. Duvall, L. Obert, R. L. Rough, and T. C. Atchison	6- 1	65
Well Remedial Work—W. B. Hopkins	8-31	69
REPRESSURING		
Gas-Injection Project Temblor Zone, Kettleman North Dome Field—D. R. Knowlton and R. W. Masters	6-15	93
Gas Injection Operation Due for Watkins Lime Field	9-14	66
RESERVES		
United States Oil Reserves and Production Data by States and by Fields, The Oil and Gas Journal Estimates	1-26	185
Proven Crude-Oil and Condensate Reserves, January 1, 1950, by States Estimated by The Oil and Gas Journal	1-26	191
Proven Reserves of Both Gas and Liquid Show Good Gain—Charles J. Deegan	1-26	190
United States Natural Gas Reserves—Jan. 1, 1950, Vs. Jan. 1, 1949, by States Estimated by The Oil and Gas Journal	1-26	192
Tabulation of Annual and Cumulative Production, and Remaining Reserves by Fields and by States Compiled by The Oil and Gas Journal	1-26	246
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	305
Reserves Sufficient to Meet All Demands—Bertram F. Linz	2- 2	22
Report on Reserves—A.I.M.E.—Dahl M. Duff	2-23	123
Reserves Are Up—Charles J. Deegan	3-16	56
Shell Reserves Higher	4-13	59
Gas Reserves Cited	4-27	212
Reserves Aplenty in Alberta—Charles J. Deegan	5-25	91
Oil Reserves for War—Henry D. Ralph	8-10	40
Southern Adds to Gas Supply by Danciger Acquisition	8-10	43
Natural Gas Reserve Figures Revised—George Weber	10- 5	127
Scurry Field Has 2½ Billion Barrels	11-23	88
Our Oil and Gas Reserves—Their Meaning and Limitations—Frederic H. Lahee	11-30	69
Adequate Reserves Needed	12-14	66
Is Petroleum a Soviet Weakness—Demitri B. Shimkin	12-21	214
Progress Report on Prairie Petroleum	12-21	285
RESERVOIR STUDIES		
Some Theoretical Aspects of Cycling (Part 1)—Morris Muskat	1-19	55
Scurry County's New Reef Fields Largest Addition to Nation's Reserves Since East Texas—D. H. Stormont	2- 2	46
Some Theoretical Aspects of Cycling (Part 2)—Morris Muskat	2- 2	53
Laboratory Determination of Relative Permeability (Part 1)—E. R. Brownscombe, R. L. Slobod, and B. H. Caudle	2- 9	63
Laboratory Determination of Relative Permeability (Part 2)—E. R. Brownscombe, R. L. Slobod, and B. H. Caudle	2-16	98
Approach to the Origin of Oil—Walter K. Link	3-16	88

	Date	Page
Subsurface Pressure-Temperature-Flow Conditions Recorded on a Single Run—D. H. Stormont	4-13	80
Sand Extension Measurements From Gas and Oil Wells—Dr. F. W. Lee (A.A.P.G. Abs.)	4-27	120
Advisory Group Asks Recovery Study of All Louisiana Oil Fields—Leigh S. McCaslin, Jr.	5- 4	69
Material-Balance Calculations North Snyder Field Canyon Reef Reservoir	5-11	85
Mississippi Oil and Gas Development—James F. Borthwick, Jr.	6-22	260
Underground Storage and Migration of Natural Gas—F. E. Vandaveer and J. J. Schmidt	7-27	270
Good Production Found in Old Skellyville Field—Philip C. Ingalls	9-14	67
Expanding Ringwood	9-28	52
Capillary-Pressure Method of Interstitial Water Determination and Related Topics—Walter Rose	10- 5	212
Overdrilled Placerita Canyon Nears Exhaustion—D. H. Stormont	10-12	82
France's Lacq Field	12-21	283
Blue Ridge Field Stages Comeback—Joseph A. Kornfeld	12-28	52
SALES OF PROPERTIES		
Magnolia Interests Sold	1- 5	32
Hugoton Interests Sold	1-19	44
Texas Property Purchase; Tom Graham Estate	1-26	158
West Texas Lease Sale	1-26	164
Lacy Leases Bought	2- 2	30
Sunray Buying Control of Barnsdall	2-16	78
Pending Merger of Barnsdall Oil Co. With Sunray—Henry D. Ralph	2-23	118
Wyoming Properties Sold	2-23	127
Gas Holdings Acquired by Vistario Corp.	4-13	58
Phillips Buys Sunray Stock, Negotiating for Globe's	4-20	143
Long Lake Purchase	4-27	65
United Geophysical Sold	5-18	93
Record Lease Sale	5-18	98
Wentz Properties Sold	6- 1	33
Danciger Stock Sold	7-27	160
Stephens Sells Interests in Caddo County, Oklahoma	10-19	68
Manning Firm Sold to Malco Refineries, Inc.	11- 2	43
Sale of North American Oil Consolidated Co. Reported Under Way	11-30	44
North American Consolidated Co. Purchase Offer Accepted by Shareholders	12- 7	62
Forty-Nine Sand Hills Producers Sold to Samedan Oil Corp.	12-14	62
Negotiations Under Way for Purchase of Three California Oil Firms for a Consideration of More Than $55,000,000—D. H. Stormont	12-28	39
SECONDARY RECOVERY (More than one type treated)		
Nationwide Secondary-Recovery Activities Increase	2- 9	55
Joe's Lake Field Pioneers Secondary-Recovery Methods in Eocene Wilcox Sands—J. M. Penrod	6-22	239
Conditioning Water for Secondary Oil Recovery in Appalachian Fields—J. N. Breston	8-24	159
Chemical Treatment of Flood Waters Used in Secondary Oil Recovery—Vance P. Gregory, C. Richard Groninger, and J. Henry Prusick	8-31	74
Increased Oil Recovery From Injection Operations—R. L. Evans and R. P. Roe	9-28	68
Todd Deep Crinoidal Unit to Get Secondary-Recovery Facilities—Roy F. Carlson	10-26	94
Improved Secondary Recovery Methods Are Reported in Pennsylvania	11-16	195
Secondary Recovery for Turner Valley?—J. A. Harvie	12-21	246
Small Field in England Increases Oil Production	12-21	378
SEPARATION (Oil, Gas and Water)		
Pilot Plant Extracts Oil Commercially From Asphaltic Sands	1-12	34
Vent Lines High-Pressure Settings—J. B. George	2-16	125
Heating System for Treating Plant	6- 1	61
Unitized Test Separator Is Always Ready for Use	8-31	64
SHOOTING		
Research on Shooting Oil and Gas Wells—B. F. Grant, W. I. Duvall, L. Obert, R. L. Rough, and T. C. Atchison	6- 1	65
Jet Process of Open-Hole Shooting—W. T. Box	6-29	85
Use of Solid Explosives in West Texas—Roy F. Carlson	8-31	62
SPACING, WELL		
Elk City Decision	1-26	165
More Wells—More Oil? Some Examples of In-Fill Drilling—H. H. Kaveler	4-20	208
Well-Spacing Ruling in California	7- 6	25
Why Do Many Geologists and Engineers Disagree on Well Spacing?—John G. Bartram	7-27	216
STATISTICS, PRODUCTION		
20,000-Ft. Goal Reached; Also New Producing Depth Record Set—Polly DeArmond	1-26	182
United States Producing Depth Records, by States	1-26	183
Accumulated Production Plus Proven Reserves—Major Fields vs. State Total	1-26	185
Crude Production Off 468,000 Bbl. Daily From 1948 High—John C. Casper	1-26	188
United States Production of Crude Oil—by States—1943-1949	1-26	189
World Crude-Oil Production by Countries	1-26	206
Lion Oil Co.'s Increase in Crude Output Led All Texas Producers—Leigh S. McCaslin	4-13	57
February Foreign Production—Dahl M. Duff	4-27	83
First-Half Production Points to High Average for Year—Philip C. Ingalls	7-27	178
Last Half Demand to Increase 6.1 Per Cent Over Same Period 1949—E. T. Knight	7-27	180
Production Outside U. S. at New High—4,710,000 Bbl. Daily—Dahl M. Duff	7-27	184
Shut-In Heavy-Crude Wells, Reopened, Result—Gain in California's Production; Heavy-Crude Prices Raised—D. H. Stormont	8- 3	29
Abqaiq—World's Largest Producer—Paul Reed	8- 3	42
1949 Stripper-Well Report	8-17	60
World Production Sets New Mark—Dahl M. Duff	8-24	99
California's Production Now Near Top Potential	9-14	68
Nation's Cumulative Production Nearly 39 Billion Barrels	11-16	202
Scurry Field Has 2½ Billion Barrels	11-23	88
World Supply-Demand Situation Now Viewed With More Optimism—Arthur D. Stewart	12-21	192
World Production Resumes Upward Trend—Dahl M. Duff	12-21	204
Progress Report on Prairie Petroleum	12-21	285
The Journal's World-Wide Survey of Oil Fields	12-21	304
SUCKER RODS (see Pumping)		
TANKAGE, STORAGE		
Improved Technique for Tank Insulation	6- 8	80
TECHNOLOGY, TRENDS		
How to Improve A.P.I. Code 25—G. H. Supple and Charles Nicholson	11-16	346
TREATING OF OILS		
Effect of Temperature and Pressure on Crude-Oil Gravities—R. L. Huntington	8-31	58
UNITIZATION		
Oklahoma Legislators and Oil Experts Study Unitization	2-23	130
First Unit Agreement	3- 9	56
Unitized Town-Lot Field Has High, Consistent Output—Neil Williams	6- 8	35
Elk City Field to Be Unitized	11- 2	43
WATER FLOODING		
Water-Flood Discussion by North Texas Oil Men—Roy F. Carlson	3-30	53
Water Flooding Wesson Hogg Sand Reservoir to Insure Maximum Oil Recovery—Sterling S. Lacy, Jr.	4-13	101
Benoist Water Flood Patoka, Illinois, Pool—H. S. Barger	5-25	109
Water-Flood Optimism in Mid-Continent Area—Kenneth B. Barnes	6- 1	36
Water-Flood Operations in Illinois, Indiana, Kentucky, Ohio, Michigan, and West Virginia—R. R. Vincent, and K. P. Huffman	6- 1	57
Gulf Coast Pilot Flood in 11,000' Ft. Gas-Condensate Reservoir—C. H. Augsburger	6-22	310
Water Flood in Neosho County, Kansas (Part 1 of 4 parts)—J. C. Joers, P. Grandone, and D. B. Taliaferro	6-29	60
Keas Drilling Co. Water Floods Bartlesville Sand in Neosho County, Kansas—700 Ft. (Part 2 of 4 parts)—J. C. Joers, P. Grandone, and D. B. Taliaferro	7- 6	46
Pilot Water Flood of Cox and Hamon Has Unusual Layout of Equipment (Part 3 of 4 parts)—J. C. Joers, P. Grandone, and D. B. Taliaferro	7-13	82
Deep Rock Water Floods 304 Acres (Part 4 of 4 parts)—J. C. Joers, P. Grandone, and D. B. Taliaferro	7-20	91
Conditioning Water for Subsurface Injection—J. Wade Watkins, C. E. Arthur, and F. R. Willett, Jr.	8-17	120
Osage Revival Comes With Modern Well-Completion and Water-Flood Techniques—Kenneth B. Barnes	8-24	95
Conditioning Water for Secondary Oil Recovery in Appalachian Fields—J. N. Breston	8-24	159
Chemical Treatment of Flood Waters Used in Secondary Oil Recovery—Vance P. Gregory, C. Richard Groninger, and J. Henry Prusick	8-31	74
Requirements of Subsurface Injection Water in Oil Production—Kurt H. Andresen and F. T. Gardner	9- 7	72
Conditioning Water for Subsurface Injection—George G. Bernard	10-12	101
Water-Flood Expansion Work to Begin in Haynesville Field, La.	10-26	64
Water Conditioning for Oil-Field Flooding Operations—N. A. Voss and Eskel Nordell	11- 9	174

Water Flooding in Weber Pool—Washington County, Oklahoma—James H. Johnston and James A. West (Part 1) 12- 7 79
Water Flooding in Weber Pool—Washington County, Oklahoma—James H. Johnston and James A. West (Part 2) 12-14 90
Water Flooding in Weber Pool—Washington County, Oklahoma—Kenneth H. Johnston and James A. West (Part 3) 12-28 57
WATER SUPPLIES
Conditioning Water for Subsurface Injection—George G. Bernard 10-12 101

Refining

	Date	Page
ABSORPTION		
New Aromatics Processes	10-26	131
ADDITIVES		
Start Construction Lubrizol Petroleum Additives Plant	8-24	200
ALCOHOL		
Nebraska Governor Proposes Alcohol Blended Gas	4- 6	112
Alcohol in Gasoline	5-18	182
Construction Underway on Shell Chemical Co.'s New Alcohol Unit	11- 2	111
ALKYLATION		
Mid-Continent's New Alkylation Unit Running	9-14	152
Improved Alkylation Process—George Weber	12-28	78
ALLOYS (see Metallurgy)		
ANALYSIS, METHODS OF (also see Laboratory)		
Cooling-Water Slime—R. B. Wise	2-23	170
Continuous Analysis and Control of Process Stream Compositions With Automatic Infrared Analyzers—T. C. Wherry and F. W. Crawford	3-23	272
Microwaves Utilized	3-30	58
Recording Mass Spectrometer—R. M. Ilfeld	7- 6	50
New Spectrochem Reference Available	12-21	343
ASPHALT		
Butane-Asphalt Refinery Is Slated for Hawaii	1- 5	89
New Asphalt Refinery	3-16	65
Two Asphalt Plants Are Being Readied by Stancal	3-16	121
Asphalt Production Rises	6- 8	96
AVIATION (see Fuels, Aviation; Lubricants)		
BUTADIENE, BUTYLENES (see Rubber, Synthetics)		
Houston Sinclair Rubber Plant Producing Butadiene	11-23	113
CATALYSIS, CATALYSTS (also see Cracking, Catalytic)		
Improvement of Gasoline by Platforming Is Stressed	1-19	96
Catalysts Research; Additives, Solvents Also Under Study at Plant	6- 1	101
Expanding Catalyst Plant	6- 8	96
Catalyst Firms Expand	7- 6	83
Hot Catalyst Levels Recorded by Geiger Counters	8-10	116
Anglo-Iranian Using Infrared Spectrometer to Study Catalyst	8-17	71
Isosynthesis Process	8-17	92
Platinum Catalyst Gets Popular	10- 5	282
Natural Clay Used As Catalyst for Lube-Oil Treating and Fluid Cat Cracking in Two Eastern Sinclair Plants—George Weber	10-19	78
New Aromatics Processes	10-26	131
Filtrol Corp Catalyst Plant Readied	11-16	382
Gravity Separation of Inactive Catalyst—C. K. Viland	11-30	74
Socony Designs Smaller Catalytic Units	11-30	103
CHEMISTRY, CHEMICALS		
Shell's Stanlow Plant	1-12	63
Chlorination of Petroleum Hydrocarbons—G. W. Hearne	2-23	163
New Use for Coke?	6- 8	36
Aldrin, Dieldrin Production	6-29	108
Dow Lets Contracts	6-29	109
Use of Olefins for Chemical Production—1940-1950—Robert S. Aries and William Copulsky	7- 6	54
New Ethyl Plants for Houston	8-24	199
Benzene-Supply Solution	11- 9	189
Dow Chemical Co. Ammonia Plant Completed	11-16	381
Jefferson Chemical Co. Expands Operations	11-16	382
Lack of Firm Commitment for Benzene Stalls Plan for Development	11-23	39
Shell to Boost Chemical Output	12-28	89
CONSTRUCTION METHODS		
Effect of Plant Process Size on Capital Cost—Peter W. Sherwood	3- 9	81
Specification of Pipe for Refinery Service—O. L. Lewis	3- 9	97
Chemical Deterioration of Cooling-Tower Lumber—C. L. Blohm and H. D. Frazier	3-16	72
Evaluation of Factors Affecting the Layout of Refining Units—L. Ross	3-23	337
Richfield Uses Sectional Forms to Produce Smooth Concrete Surfaces	5-18	126
Photography Proves Valuable to Sinclair's East Chicago Refinery—R. D. Herlocker	7- 6	40
Sag vs. Belt Length—F. H. Rumble	8-10	83
Here's the What, When, Where, Why of Flanges—O. L. Lewis	8-17	88
Pump Stuffing Box for Obnoxious or Inflammable Liquids—C. A. Butler, Jr., and R. C. Sutter	8-17	117
Flange, Gasket, and Bolting Materials for Refinery Service—O. L. Lewis	8-24	134
Racks for Cleanout Accessories	8-31	57
Gaskets for the Oil Industry—H. H. Dunkle	10- 5	194
CONTROLS (see Instrumentation)		
CORROSION (also see Production, Pipe Line, Natural Gas, Natural Gasoline-Cycling)		
Corrosion Experienced in a New Crude Distillation Unit—D. L. Burns (N.A.C.E. Abs.)	4-27	190
Surface Preparation Value and Sand Blasting Economics—A. J. Liebman (N.A.C.E. Abs.)	4-27	192
Corrosion, Waste Disposal, Refinery Maintenance Problems Highlight Discussions at Annual Refining Division Meeting—George Weber	5- 4	55
Corrosion of Relief Valves in Sour-Crude Service—R. J. Hafsten	5-25	149
Cathodic Protection for Open-Box-Type Coolers—C. R. Draughon, Jr., and E. B. McNeil	6- 1	76
The Fundamentals of Galvanic Corrosion—A. B. Lauderbaugh	8-17	97
Water-Soluble Cutting Oils Used as Pickling Inhibitors—Karl F. Hager and Morris Rosenthal	8-24	142
Tower Corrosion Arrested With Boiler Blow-Down Water	8-31	84
Data Reveal That Use of Vanadium on Residual Fuel Oil Contributes to Furnace, Boiler Corrosion, A. S. M. E. Told—George Weber	11-30	48
COST-IMATING (a series of the Refiner's Notebook) by W. L. NELSON		
Current Itemized Cost Indexes	4- 6	93
Construction Costs Rise Slowly	7- 6	67
Current Cost Indexes	10- 5	263
CRACKING, CATALYTIC		
Sun to Put Expanded Toledo Refinery on Stream March 1—George Weber	1- 5	30
New T. C. Units; Socony-Vacuum Replacing Units at Three Refineries	1-12	40
Flexibility, Efficiency Feature Sohio's Modernized Lima Refinery—George Weber	1-12	51
T.C.C. Unit Operation Is Changed at Torrance Plant	1-12	102
Socony Lets Contracts for Two Modified Cat Crackers	1-26	359
Panhandle's New Catalytic Cracker to Operate Soon	2-16	141
Drumright Cat Cracker to Begin Operation by April 1	3- 9	121
Wood River Cracking Unit Put on Stream	3-16	121
Sunray Cat Cracker Runs at 99.93 Per Cent Efficiency	3-16	121
Fluid Catalytic Cracking Process	3-23	172
Houdriflow Catalyst Cracking Process	3-23	174
Cycloversion Catalytic Cracking Process	3-23	175
Suspensoid Catalyst Cracking Process	3-23	176
Fluid Catalyst Cracking at High-Sulfur Stocks with Natural Catalysts—E. Jackson Thomas	3-23	221
T.C.C. Unit Turnaround After Two Years' Operation Coy A. Hardcastle	3-23	261
Maintenance of a Fluid Cat Cracking Unit—T. J. Byrne and F. M. Jenkins	3-23	275
Shamrock to Install New Houdriflow Unit at McKee	3-30	133
Portable Catalytic Reforming Unit for Field Processing	4-20	163
Pan-Am Southern Corp. Plans New Cat Cracker	4-20	277
Phillips Reveals Plans for 30,000-Bbl. Cat Unit in Texas	5- 4	61
New Modified Thermofor Catalytic Cracking Process—George Weber	5-11	52
Packaged Cracker for Smaller Refineries—George Weber	6-22	158
Panhandle's "Kitten Cracker" Has 1,250-Bbl. Daily Charge—R. W. Jacobs	6-29	81
Deep Rock's Catalytic Cracker Now in Operation	7-27	355
"Packaged" T.C.C. Unit—George Weber	8- 3	50
Cracking Unit for Socony	8- 3	79
Gulf Orders 60,000-Bbl. Cracker Unit for Port Arthur	8-10	42
T.C.C. Unit Contract Let in Los Angeles	8-10	116
Cities Service to Build Cat Cracker at Old Plant at Ponca City	8-31	107

	Date	Page
Cat Cracker Planned for Louisville	9- 7	116
Independent Italian Refining Company Orders Midget Crackers for Installation at Genoa, Rome Plants	9-21	182
Sunray Cracker Completes 611 Days Without Shutdown	11- 9	62
Socony - Vacuum Announces New Cat - Reforming Process	11- 9	190
T.C.C. Unit Work Under Way	11-16	381
Economics of Petroleum Coking for Catalytic Cracking Feed Preparation—J. W. Jewell, Jr., and J. P. Connor	11-23	64
New Catalyst Developed	12-21	343
Standard of California Completes Salt Lake City Cracking Unit	12-28	89
CRACKING, THERMAL		
Thermal Cracking Process	3-23	181
Thermal Reforming Process	3-23	182
Vis-Breaking and Pour Reduction Process	3-23	183
Delayed Coking Process	3-23	184
Delayed Coking and Pour-Reduction Process	3-23	185
Vacuum Distillation and Vis-Breaking—Roger W. Williams and John M. Naugle	3-23	241
Premier to Revamp Thermal Unit at Fort Worth Plant	3-23	365
First Modified T.C.C. Installation Is Completed	12-14	60
CRUDES		
Analyses of Crudes From Middle East, South America, Canada	3- 2	70
Coltex Refining to Take Permian Distress Oil	3- 9	122
Analyses of Foreign Crude Oils Published by Bureau	3-30	133
Crude Receipts Up	5-25	176
Economics of Reducing Crude-Oil Vaporization Losses —R. L. Huntington	6-15	108
Advances in Petroleum Refining—W. M. Holaday	10-12	84
Opinions Differ on the Desirable Crude-Stock Level But the Estimate Has Gone Down as Production and Refinery Runs Increased—John C. Casper	11- 9	61
Heavy Crudes Play Heavy Role in Reversing California's Production Trend	11- 9	A-28
Higher Crude Price Sought	12-14	60
DEHYDROGENATION		
Catalytic Dehydrogenation Process	3-23	178
DESULFURIZATION		
Catalytic Desulfurization Process	3-23	189
Phosphate Desulfurization Process	3-23	192
DEWAXING		
Propane Dewaxing Process	3-23	203
Solvent Dewaxing Process	3-23	205
Esso's New M.E.K. Unit at Bayonne Undergoing Tests	3-30	133
Long Solvent Unit Runs	10-26	132
DIESEL FUELS (see Fuels)		
DISTILLATION (also see Fractionation)		
Twin-Naphtha-Rerun Units—Robert Harwick	1- 5	55
Semimicrofractionation by Means of Spinner Columns—A. V. Cruthirds, W. C. Jones, and W. D. Seyfried	2-16	117
Atmospheric and Vacuum Distillation Process	3-23	198
Three-Stage Distillation Process	3-23	210
Vacuum Distillation and Vis-Breaking—Roger W. Williams and John M. Naugle	3-23	241
Vaporization in Pipe Stills	6-15	121
ELECTRICAL (also see related subjects under other heads)		
Economics of Power Generation at Sinclair's East Chicago Refinery—William H. Decker	3-23	232
ENGINES		
Transparent Side Used in Rocket Engine	1-26	165
Vitamin Capsules Now Made for Auto Engines	3- 2	89
Engineers Find Turbulence in Cylinder Head Stops Engine Knock and Improves Octane Rating—George Weber	3-16	58
New Type Light Automobile Engine Obtains More Complete Utilization of Modern Gasoline	3-30	64
Road vs. Laboratory Knock Ratings—J. B. Duckworth, G. T. Moore, and C. J. Domke	5- 4	142
Warm Your Engine	5- 4	163
Effects of Sulfur in Motor Gasoline on Engine Operation—R. E. Jeffrey, J. B. Duckworth, and E. J. Gay (A.P.I. Abs.)	5-25	149
New TCP Development May Mean More Miles per gallon	6- 8	36
New Engine-Wear Test—George Weber	7-27	162
Index for Type A Fluids Lowered by General Motors—George Weber	8-10	44
New Sealed Engine Awaits Petroleum Improvements	10-26	131
EQUIPMENT (see specifically)		
FABRICATION		
FEED STOCKS (see Crudes)		
FILTRATION		
Pilot Unit Studies on Filtration of Refinery Emulsions and Separator Sediment—E. Q. Camp and Cecil Phillips	3-23	214
Extended Pressurized Safety Hood Allows In-Place Repair of Ketone Filters — Parker C. Folse and Homer T. Fort	7-27	334
FISCHER-TROPSCH (see synthesis)		
FRACTIONATION (also see Distillation; Plants)		
Control Instrumentation for Light-ends Fractionation —E. L. Stark	1-19	62
Semimicrofractionation by Means of Spinner Columns—A. V. Cruthirds, W. C. Jones, and W. D. Seyfried	2-16	117
New Fractionating - Tower Packing Announced by Firm	2-23	210
Wax Fractionation Process	2-23	207
FUELS, AVIATION (also see Cracking)		
Production of Aviation Gasoline Shows Increase	1- 5	89
Aviation Gasoline Output Up in 11-Month Period	2- 9	107
Aviation-Gasoline Report	4-20	278
Aviation Fuel Contracts Let	4-27	214
Avgas Supply Problem—George Weber	10- 5	125
PAD Places Avgas Supply Step-Up Problem in Refiners' Laps—Bertram F. Linz	10- 5	62
Commercial Aviation Fuel to Be Changed—George Weber	10-12	62
Avgas Needs to Decline During First Half of 1951	11- 9	189
S.A.E. Group Reviews Data on Aircraft and Diesel Fuels, Antiknock Progress, Use of L.P.G. Products in Motor Buses—R. B. Tuttle	11-16	193
Fuels for Our Fighting Forces—Col. Benjamin S. Mesick	11-16	283
Why Avgas Is Tight—Henry D. Ralph	11-30	40
FUELS, DIESEL		
Methods for Estimating Cetane Number—H. D. Young	6- 1	81
S.A.E. Group Reviews Data on Aircraft and Diesel Fuels, Antiknock Progress, Use of L.P.G. Products in Motor Buses—R. B. Tuttle	11-16	193
Fuels for Our Fighting Forces—Col. Benjamin S. Mesick	11-16	283
Diesel-Fuel Survey Released by the U. S. Bureau of Mines	12-14	128
1950 Diesel-Fuel Survey—O. C. Blade	12-28	81
FUELS, GENERAL (also see Cracking)		
Twin Naphtha-Rerun Units—Robert Harwick	1- 5	55
New-Type Automobile Fuel Is Developed in Britain	1-12	102
General Increase Noted in Gasoline-Octane	1-19	30
Toluene Plant Converted to Gasoline Stabilization With Little Alteration	2- 2	70
Octane Numbers of Gasolines Climb Sharply in 1949	2- 9	77
Acid Sludge Fuels Used in Steam Generation—H. Kaye and R. K. Spencer	2- 9	80
Oil vs. Coal—John C. Casper	2-16	73
New Oil to Be Offered by Continental Oil Co.	2-16	142
Texas Co. Reveals Successful Testing of Knock-Free Engine—George Weber	3- 2	21
Improving Road Antiknock Rating of Fuels—John S. Wintringham	3-23	284
Sun Using Lead	4-13	62
Commercial Use of Military's New Heavy-Duty Lubricating Oil Is Criticized at N.P.A. Meeting—Dahl M. Duff	4-20	141
Climbing Octanes—George Weber	4-27	63
Oil-Heat Outlook—Dahl M. Duff	4-27	74
Du Pont Survey Shows National Average Octane Rating of Regular-Grade Motor Fuel Now 83.2, Premium Gasoline 89.4	5- 4	59
Road vs. Laboratory Knock Ratings—J. B. Duckworth, G. T. Moore, and C. J. Domke	5- 4	142
Investigation to Determine National Fuel Policy Proposed	5-11	52
Promising Process Offers Gasoline in Pellet Form—George Weber	5-25	94
Effect of Hydrocarbon Structure on the Road Antiknock Performance of Motor Fuels—T. B. Prickett, M. H. Campbell, R. L. Johnson and D. A. Knee (A.P.I. Abs.)	5-25	149
Platformate—Properties and Performance—J. S. Bogen and V. Haensel (A.P.I. Abs.)	5-25	151
Methods for Estimating Cetane Number—H. D. Young	6- 1	81
Ethyl Raises Requirements for Fuel-Bearing Trademark	6- 8	37
Octanes Versus Engines—George Weber	6-15	77
Crude Oil As Engine Fuel	6-15	121
Octane Race Uneconomic, Wasteful, Doolittle Says	6-22	155
Bureau Says Octane Numbers Last Winter Highest on Record	6-22	156
Octane Competition	6-29	43
Navy Buys $81,000,000 Worth of Gasoline	6-29	108
A.S.T.M. Raises Maximum Vapor Pressure for Gasoline in Northern States During Winter Months—George Weber	7-13	47
Octane Race Halted—George Weber	7-27	159
Du Pont Scatters 31 Autos Over Nation to Test Fuels	7-27	161
Octane Ratings Continue to Climb in Motor Gasoline During the Third Quarter of 1950 Indicating No Drain for Military Use—John C. Casper	10-26	60

	Date	Page
Munitions Board Studying Possible Wartime Pattern of Fuel Consumption	12-14	54
GREASES (see Lubricants)		
HEAT EXCHANGE		
Details of Conversion of Atmospheric Cooling Tower to Induced-Draft Operation—Raymond Todd	1- 5	46
Selection, Operation, and Maintenance of Water-Cooling Towers—Neal B. Laubach	1-12	58
Refinery Engineers Hold Seminar on Methods of Using, Measuring, and Recovering Large Quantities of B.t.u.'s—R. B. Tuttle	6-15	78
The Why, How, and Dollars and Sense of Waste-Heat Recovery—L. D. Stewart	7-13	70
HYDROGEN FLUORIDE (see Catalysis)		
INHIBITORS		
Water-Soluble Cutting Oils Used As Pickling Inhibitors—Karl F. Hager and Morris Rosenthal	8-24	142
INSTRUMENTATION		
Control Instrumentation for Light-Ends Fractionation—E. L. Stark	1-19	62
Latest Improvements in Instrumentation Installed at Cit-Con Plant	3-23	266
Continuous Analysis and Control of Process Stream Compositions With Automatic Infrared Analyzers—T. C. Wherry and F. W. Crawford	3-23	272
Simple, Rapid Method of Producing Thermocouple Junctions—Karl F. Hager, Morris Rosenthal, and and Werner Ross	7-13	87
Continuous Measurements and Central Monitoring of Many Oil-Industry Processes Are Shown at I.S.A. Conference	9-28	53
Process Monitoring Systems—E. J. Grace	10- 5	202
Instrument Course at Texas A. & M.	10-12	139
Engineers Hear of New Instrument Developments, Practices—John C. Reidel	10-19	63
ISOMERIZATION		
Butane Isomerization Process	3-23	186
Liquid Phase Isomerization Process	3-23	187
Isomerization Process	3-23	188
LABORATORY (also see Analysis, Treating)		
Bugs Aid Refineries	6- 1	33
Recording Mass Spectrometer—R. M. Ilfeld	7- 6	50
Pure Lab Opened to Public at Crystal Lake, Ill.	10- 5	124
Texaco Opens Expanded Research Facilities at Beacon, N. Y., Which Provide for Engineering, Mechanical Study—George Weber	11- 9	55
United Gas' New Laboratory at Shreveport in Operation—Joseph A. Kornfeld	12- 7	57
Stanolind Oil & Gas Co. Plans Research Lab	12-21	148
LIQUEFIED PETROLEUM GASES (also see NATURAL GASOLINE)		
Sinclair Completes Unit	7-27	353
L.P.G. Production at Sinclair's Marcus Hook Refinery—H. F. Thompson	8- 3	66
LUBRICANTS: LUBRICATION		
Lube-Oil Rating—George H. Weber	2- 9	53
New Launching Grease Is Developed by Socony	2-23	210
Additional Features of Pure Oil's Smiths Bluff Lube Plant	3-16	79
New Lubrication Findings Discussed by Scientists	3-16	122
Sinclair Will Market New Multipurpose Grease Soon	3-23	366
New Military Lube-Oil Specifications Indicate Addition of Another Grade Which Must Be Manufactured, Distributed—George Weber	4-27	68
New Lube Tester	4-27	215
Multipurpose Grease	5-11	112
Lube Production Rises	6-15	140
New Lube Classification—George Weber	6-22	155
New Grease Improved	6-22	342
Solvent Lube-Oil Plant on Stream at Lima, Ohio	7-20	124
New Engine-Wear Test—George Weber	7-27	162
S.A.E. Sees a Future for the Gas Turbine, Standardization of Military Fuels, Troubles With Residue in Lube Oils	8-24	97
Lube Production Rises in Mid-Continent Area	8-24	199
Gas Oil Meets Steel Test	9-14	153
New Names Studied for High-Detergent Types of Heavy-Duty Lubricating Oils	9-21	171
Industry Looks for Continued High Demand for Lubes, Reversing Its Spring Pessimism — George Weber	11- 2	33
New-Type Diesel with Silver Bearings Will Subject Lubes to High Operating Temperatures, Navy Spokesman Predicts	11-16	185
MAINTENANCE		
Saving on Plant Maintenance—George Weber	1-19	31
Portable Refinery Scaffolding Speeds Maintenance Work	1-19	61
Cooling-Water Slime—R. B. Wise	2-23	170
Use of Sonic Collectors to Remove Fine Particles from Processing Exhaust Gases—Leigh S. McCaslin	3- 9	50
Chemical Deterioration of Cooling-Tower Lumber—C. L. Blohm and H. D. Frazier	3-16	72
Maintenance of a Fluid Cat Cracking Unit—T. J. Bryne and F. M. Jenkins	3-27	275
Corrosion, Waste Disposal, Refinery Maintenance Problems Highlight Discussions at Annual Refining Division Meeting—George Weber	5- 4	55
Maintenance in a Small Refinery—John S. Pfarr, Robert W. Pollard, Leon T. Harris, and William F. Dougherty	5-18	145
Cathodic Protection for Open-Box-Type Coolers—C. R. Draughon, Jr., and E. B. McNeil	6- 1	77
Damaged Drums Reconditioned at 100 Per Hour Rate	8-10	89
Indonesian Repair Work Still Under Way But Nears Its Economic Limit	12-21	275
METALLURGY		
Specification of Pipe for Refinery Service—O. L. Lewis	3- 9	97
Tool Design Important in Handling Corrosion-Resistant Alloys	6- 8	58
Crack Detection—Use of Powdered Aluminum	6- 8	58
Minus 300° F. Spherical Vessel	6- 8	58
Forging Terms or Operations	6- 8	58
PROGRESS IN METALS (a series) by W. L. NELSON		
Alloy for Offshore Drilling, Other Marine Applications	1-19	74
Thin Babbitt Bearings	2-16	121
High-Temperature Stability	2-16	121
Treatise on Wear	2-16	121
Powder Metallurgy	4-13	109
Electrodeposited Metallic Coatings—Specifications and Tests	4-13	109
Leaded Steel Again Available	4-13	109
Forging Terms or Operations—Ironing	4-13	109
Summary of Gray Iron Specifications	7- 6	64
Low-Carbon Steel at Elevated Temperatures	7- 6	64
Mounting Metallurgical Specimens	7- 6	64
Pipe Fabrication Standards	7- 6	64
Scarcity Index of Alloy Metals	8-10	86
Embrittlement of Welded Stainless Removed by Annealing	8-31	83
Cast-Iron Symposium	8-31	83
Gray Iron—Second Largest Metal-Working Industry	8-31	83
Underground Corrosion of Metals, A Report by Bureau of Standards	10- 5	208
Creep Strength of Lead	10- 5	208
Fatigue Limit of Plated Steel	10- 5	208
Titanium in Steel	11- 9	182
Synthetic Rubber Coating for Protecting Against Erosion	11- 9	182
Forging Terms or Operations	11- 9	182
Nondestructive Testing	12-14	109
NOTEBOOK, REFINER'S (a series)		
1—Refinery Loss Control	1- 5	77
2—Calculation of Total Loss	1-12	83
3—Storage Losses	1-19	79
4—Tank Gaging as Related to Loss Control	1-26	357
5—Measuring Floating-Roof Tanks	2- 2	75
6—Reducing Storage Loss	2- 9	91
7—Instrument Identification	2-16	127
8—Instrument Symbols	2-23	197
9—Automatic Control	3- 2	81
10—Modes of Control	3- 9	103
11—Temperature Measurement and Control	3-16	111
12—Pressure Control	3-23	351
13—Flow Control	3-30	123
14—Level Control and Surge Capacity	4- 6	97
15—Application of Automatic Control	4-13	117
16—Economics of Automotive Control	4-20	259
17—Automatic Analytical Methods	4-27	203
18—Control Valves	5- 4	153
19—Control-Valve Characteristics	5-11	103
20—Sizing Control Valves	5-18	167
21—Control-Valve Flow Rates	5-25	161
22—Control-Valve Pressure Drop	6- 1	87
23—Butterfly Valves and Dampers	6- 8	85
24—Power Units	6-15	125
25—Pneumatic Controllers	6-22	331
26—Controller Characteristics	6-29	93
27—Proportional Band	7- 6	69
28—Pneumatic Transmission	7-13	105
29—Ratio Flow Control	7-20	109
30—Metered Control Systems	7-27	341
31—Interconnected Control and Derivative Action	8- 3	71
32—Pneumatic Transmission Lag	8-10	99
33—Instrument Settings	8-17	141
34—Reset Rate	8-24	177
35—Adjustment of Proportional-Reset Controller	8-31	87
36—Rate Action	9- 7	101
37—Adjustment of Derivative Controller	9-14	133
38—Ratio and Metered Control Adjustments	9-21	373
39—Process Lag in Controlled Systems	9-28	103
40—Process Lag and Load Changes	10- 5	261
41—Instrument Air System	10-12	125
42—Design of Instrument Air System	10-19	127
43—Graphic Instrumentation—1	10-26	115
44—Graphic Instrumentation—2	11- 2	95

	Date	Page
45—Graphic Instrumentation—3	11- 9	181
46—Controller Action on Startup	11-16	365
47—Three-Function Response	11-23	95
48—"Tri-Act" Control	11-30	89
49—Conventional Adjustments	12- 7	115
50—Tri-Act Control Settings	12-14	111
51. Summary—Tri-Act Control	12-21	333
52. Introduction to Greases	12-28	85
OPERATING RUNS—		
General Petroleum Corp. Sets Record at Torrance	2- 9	107
Carter Refinery Runs	6- 1	102
PACKAGING		
Socony-Vacuum Revamps Lube-Packinging Facilities at Paulsboro—George Weber	4-13	78
Damaged Drums Reconditioned at 100 Per Hour Rate	8-10	89
Drum Reuse Approved	8-10	117
Oil-Drum Shortage Is Critical	10- 5	282
Calumet Refining Co., Forms Package Division	11-16	381
PETROCHEMISTRY		
Petroleum Production Up	6- 8	95
Petroleum Chemicals 1950 and 2000—Gustav Egloff	6-15	99
85 Per Cent of Nation's Capacity for Petrochemicals Concentrated Along Gulf Coast—George Weber	6-22	171
Gulf Coast's Petrochem Plants: Their Locations and Products	6-22	301
Magic of Petrochemistry Opens New Horizons for Oil and Gas	11- 2	50
Chemicals From Natural Gas and Petroleum—Gustav Egloff	11- 2	69
Progress in Petrochemistry—A Technical Report—William J. Sweeney	11- 2	74
More Than 25 Oil Companies Are Engaged in Various Phases of Petrochemical Industry, With Trend Continuing Upward—George Weber	11-23	47
5-Year Petrochemical-Research Program Planned	12-14	127
PILOT PLANTS		
Atlantic's New Pilot-Plant Building—George Weber	2-16	79
Pilot Unit Studies on Filtration of Refinery Emulsions and Separator Sediment—E. Q. Camp and Cecil Phillips	3-23	214
PLANTS, GENERAL		
Port Jerome Refinery	1- 5	61
Butane-Asphalt Refinery Is Slated for Hawaii	1- 5	89
Flexibility, Efficiency Feature Sohio's Modernized Lima Refinery—George Weber	1-12	51
Shell's Stanlow Plant	1-12	63
Hutex Refinery at Hardin, Tex., Is Being Dismantled	1-19	95
Toluene Plant Converted to Gasoline Stabilization With Little Alteration	2- 2	70
Canary Islands Refinery Adding Modern Lube-Manufacturing Facilities	2- 9	89
Crude-Oil Capacity at Midland Cooperative Plant Stepped UP 50 Per Cent—R. B. Tuttle	2-16	105
Sun Lets Contract for New Toledo Refinery Project	2-16	141
Work at Socony-Vacuum's Plant Nearing Completion	2-16	141
Pure's New Smith's Bluff Plant to Produce 90,000 Gal. of Finished Stocks Daily—Leigh S. McCaslin, Jr.	3- 2	26
McCarthy Chemical Co. Closes Winnie Plant	3- 2	88
Esso's New Mechanical Building Rounds Out Expansion Program	3- 9	100
SOCal Begins Big Project to Cut Heavy-Fuel Yields	3-16	54
Pure Constructs New G.C.B. Plant—L. B. Stevens	3-16	76
New Installations on Full Stream at Lima Refinery	3-16	121
Texas Furfural Refines Gas Oil—H. H. Gross, W. E. Skelton, and J. C. Best	3-23	211
Propane Deasphalting at Utah Oil Refining Co.—C. W. Nysewander and L. V. Durland	3-23	216
Latest Improvements in Instrumentation Installed at Cit-Con Plant	3-23	266
Lube-Oil Blending-Packaging-Warehousing at Sun Oil's Marcus Hook Refinery	3-23	281
Contract Let for McPherson Refinery Modernization	3-23	365
Commercial Platforming at Old Dutch Refinery—Dr. Vladimir Haensel	3-30	85
Work to Begin in May on Hawaiian Refinery	3-30	132
Old Dutch Refining Co. Finds Platforming Process Ideally Suited to Its Needs—George Weber	4- 6	62
Coker Unit Expansion by General Is Completed	4- 6	111
Socony-Vacuum Revamps Lube-Packaging Facilities at Paulsboro—George Weber	4-13	78
Dupo Refinery Operating	4-13	137
Cushing Blast Damage Slight	4-27	214
Sunray Plant to Reopen	4-27	214
Fire Damages Plant	4-27	215
Perth Amboy Refinery Soon to Handle 50,000 Bbl. Daily—George Weber	5- 4	69
War-Products Plant Adapted to High Distillate Yield—George Weber	5-11	66
Ashland May Expand Refinery	5-25	176
Caltex Opens 20,000-Bbl. Pernis Refinery Near Rotterdam	6- 1	42
Reduced Crude Decarbonization at Modernized British American Refinery—George Weber	6- 8	54
Socony-Vacuum Completes East St. Louis Expansion	6- 8	95
New Houdriflow Cracking Unit Gives Tide Water Flexibility in Handling Variety of Mid-Continent or Sour Crudes—R. B. Tuttle	6-15	74
Construction on Shell Haven Refinery on Schedule—V. S. Swaninathan	6-15	118
Dow Expands Chemical Firm to $30,000,000 at Freeport—Leigh S. McCaslin, Jr.	6-15	139
Redesigning Shell's Heysham Refinery—V. S. Swaminathan	6-29	71
Photography Proves Valuable to Sinclair's East Chicago Refinery—R. D. Herlocker	7- 6	40
Socal's Richmond Plant to Get Vacuum Flasher	7-20	124
2,000-Bbl. Refinery Planned	7-27	356
Sunray to Rebuild Plant	7-27	356
McMurrey to Expand	7-27	356
Venezuela's First Lube-Oil Plant—George Weber	8- 3	31
Richardson Plant to Reopen	8-17	154
Ammonia Plant to Operate in Houston	8-17	154
French Reconstruction of Gironde Refinery Gives Caltex Group Virtually a New Plant in Bordeaux Area	8-24	101
Modern Light-Oil Refinery Completed—H. A. Lutz and L. L. Claassen	8-24	110
New Ethyl Plants for Houston	8-24	199
Closed Richardson Refinery to Open	8-24	200
Deep Rock Completes Large Cushing Construction Program	9- 7	62
Deep Rock Is Integrated Operation	9- 7	63
Trieste Plant Expands	9-14	76
Union Oil Co. of California Operates Flexible Clay-Treating and Vacuum-Distillation Unit.	9-14	102
Bay to Expand Plant	9-14	153
Conoco to Double Charge Capacity at Lake Charles	9-21	176
Sinclair's 35,000-Bbl. Puerto La Cruz, Venezuela, Plant Will Go on Stream October 1—Dahl M. Duff	9-21	180
Great Southern Corp. Refinery May Be Reopened	9-21	381
Humble Closes Texas Plant	9-21	381
Shell Building New Plant	9-21	381
Richardson Texas City Refinery Operating	9-21	382
Canadian Firm to Build $18,000,000 Refinery at Froomfield	9-28	54
Wisconsin Refinery to Process Alberta Crude	9-28	55
Planning a Large Unit Turnaround—E. E. McPherson	9-28	94
Pan-Am Southern Coking Unit Completed	10- 5	281
New Standard Oil Co. (Ohio) Refinery Readied	10- 5	282
Cities Service Terminal at Chicago Dedicated	10-19	147
Platforming Units Started at Fort Worth	10-19	148
Newly Dedicated Pan-Am Southern Delayed-Coking Unit Charges 9,300 Bbl. Daily—Oscar A. Fuchs	10-26	76
Sinclair Completes New Puerto La Cruz Plant—Dahl M. Duff	10-26	68
Kermac Spending $600,000 on Expansion of Wynnewood Plant	11- 2	40
Humble Begins Construction of New Pipe Still at Baytown Refinery As Part of Continuous Improvement Program	11- 9	56
Sohio Expansion Program at Lima Nears Completion	11- 9	189
Derby Oil Co. to Expand Wichita Refinery	11-16	381
Houston Sinclair Rubber Plant Producing Butadiene	11-23	113
Capacity of Cartagena, Spain, Refinery May Be Increased to 30,000 Bbl. Daily With New Installations—Dahl M. Duff	11-30	52
Kansas Refinery at Neodesha to Expand	11-30	103
General Petroleum Corp. Plans Oregon Refinery	12- 7	57
T.G.T. Plant Progressing	12-14	60
Atlantic Refining Co. to Enlarge Refining, Petrochemical Operations	12-14	128
SGHP's New Dunkirk Refinery—J. Andrault	12-21	242
Anglo-Iranian's Llandarcy Refinery Expands	12-21	253
Modernization Completed at A.I.O.C. Eurotank Refinery	12-21	300
Superior Plant to Go on Stream May 1	12-28	89
PLANT PRACTICES		
Radio Network Proves Successful in Major Refinery—George Weber	3- 2	46
New Device Perfected for Lighting Pilot Light on Elevated Flare Stacks—O. L. Clevenger and W. A. McElhannon	3-30	91
Mechanical Modernization at Esso Standard's Baton Rouge Refinery—Charles P. Hoyt	6-22	178
Humble's Cost Control Program	6-22	233
Return Bend Fitted with Boss for Thermocouple Connection	7- 6	62
Diesel Fuel Treated Hot From Fractionator	7- 6	62
The Why, How, and Dollars and Sense of Waste-Heat Recovery—L. D. Stewart	7-13	70
Sag vs. Belt Length—F. H. Rumble	8-10	83
Desiccant Keeps Motor-Operated Valves Free of Moisture	8-10	97
Expansion Jack for Pipe Lineup	8-10	97
Masking Tape Temporarily Secures Asbestos	8-10	97
Atomizing Steam Pressure Differential Regulator	8-10	97
Tube-Sheet Gage	8-10	97
Union of California Salvages Oil From Waste Water Conditioning System	11- 9	A-92

	Date	Page
Special Jig Aids in Salvaging Welded Fittings and Other Piping Connections	11- 9	A-94
Hinged Side of Trailer Provides Work Bench	11- 9	A-97
Globe Refining Solves Some Operating Problems—R. B. Pierce and J. M. Lawson	12-28	56
PLASTICS (see Synthesis)		
POLYMERIZATION		
Catalytic Polymerization Process	3-23	180
Propylene Polymerization for Motor-Gasoline Production—Wendell F. Deeter	3-23	252
Performance of Thermal Poly Transeconomizers—J. H. Smith	8- 3	45
Polymerization Facilities Operating at Torrance	12-14	62
POWER PLANTS		
Economics of Power Generation at Sinclair's East Chicago Refinery—William H. Decker	3-23	232
PROCESSES		
Clean Oil and Wax Can Be Made from Petroleum Waste	2-23	209
Platforming Report—George Weber	3- 2	22
Higher Yields of Ethylene from Refinery Gases Seen	3- 2	25
Effect of Plant Process Size on Capital Cost—Peter W. Sherwood	3- 9	81
Fluid Catalytic Cracking Process	3-23	172
Houdriflow Catalytic Cracking Process	3-23	174
Cycloversion Catalytic Cracking Process	3-23	175
Suspensoid Catalytic Cracking Process	3-23	176
Catalytic Reforming Process	3-23	177
Catalytic Dehydrogenation Process	3-23	178
Hydroforming Process	3-23	179
Catalytic Polymerization Process	3-23	180
Thermal Cracking Process	3-23	181
Thermal Reforming Process	3-23	182
Vis-Breaking and Pour Reduction Process	3-23	183
Delayed Coking Process	3-23	184
Delayed Coking and Pour-Reduction Process	3-23	185
Butane Isomerization Process	3-23	186
Liquid Phase Isomerization Process	3-23	187
Isomerization Process	3-23	188
Catalytic Desulfurization Process	3-23	189
Tannin-Solutizer Process	3-23	190
Lead Sulfide Treating Process	3-23	191
Phosphate Desulfurization Process	3-23	192
Copper-Sweetening Process	3-23	193
Unisol Treating Process	3-23	194
Mercapsol Treating Process	3-23	195
Perco Copper-Sweetening Process	3-23	196
Girbotol Process	3-23	197
Atmospheric and Vacuum Distillation Process	3-23	198
Furfural Refining Process	3-23	199
Phenol Treating Process	3-23	200
Edeleanu Process	3-23	201
Propane Deasphalting Process	3-23	202
Propane Dewaxing Process	3-23	203
Duo-Sol Extraction Process	3-23	204
Solvent Dewaxing Process	3-23	205
Wax Manufacturing Process	3-23	206
Wax Fractionation Process	3-23	207
Hypersorption Process	3-23	208
Ethylene Manufacturing by Cracking Process	3-23	209
Three-Stage Distillation Process	3-23	210
Propane Deasphalting at Utah Oil Refining Co.—C. W. Nysewander and L. V. Durland	3-23	216
Vacuum Distillation and Vis-Breaking — Roger W. Williams and John M. Naugle	3-23	241
New Products, Processes—Leigh S. McCaslin, Jr.	3-30	57
Socony-Vacuum, British Firm to Build 20,000-Bbl. Plant in England	3-30	73
Platforming Approaches the Ideal Solution for Reforming Low-Octane and Straightrun Gasoline—Dr. Vladimir Haensel	3-30	82
Commercial Platforming at Old Dutch Refinery—Dr. Vladimir Haensel	3-30	85
Old Dutch Refining Co. Finds Platforming Process Ideally Suited to Its Needs—George Weber	4- 6	62
Platforming Unit Planned at Bradford, Pa.	5- 4	69
New Modified Thermofor Catalytic Cracking Process—George Weber	5-11	53
Chemist Says Ultrasonics Applicable to Processing—George Weber	6- 1	35
Refinery Engineers Hold Seminar on Methods of Using, Measuring, and Recovering Large Quantities of B.t.u.'s—R. B. Tuttle	6-15	78
Construction of Shell Haven Refinery on Schedule—V. S. Swaminathan	6-15	118
New Platforming Unit	6-15	140
Another Platforming Unit	6-22	341
Hall Process for Manufacturing High-B.t.u. Gas Promises Greater Residual Demand, Competition for Natural Gas	7- 6	25
Platforming Unit Planned	7-20	124
New Furfural Process in Use	7-20	124
Ion Exchange—George Weber	8-10	67
New Gas-Production Process Is Introduced	8-10	96
Isosynthesis Process	8-17	92
T.C.C. Liquid-Feed Operations	8-31	54
Union Oil Co. of California Operates Flexible Clay-Treating and Vacuum-Distillation Unit	9-14	102
Mid-West Refineries, Inc., Platforming Unit Under Way	9-21	381
Process Monitoring Systems—E. J. Grace	10- 5	202
Platforming Unit Started at Fort Worth	10-19	148
Onyx to Install Platformer	10-26	132
Shell Orders Two U.O.P. Units With Capacity of 15,000 Bbl. Daily Each for Wood River, Houston Refineries—George Weber	11-23	43
Texas Platformer Ordered	11-30	104
Tests Prove That Petroleum-Coke Study Can Be Substituted for Coke Made From Coal for Firing Spreader-Stoker Type Boilers—George Weber	12-14	64
REFINERIES, LIST OF		
Current Status of Synthetic Rubber Butadiene Plants	3-23	296
346 Operating Plants, 48 Idle, Survey Shows	3-23	304
North American Operating Refineries	3-23	305
Operating Refineries in Canada	3-23	323
Operating Refineries in Mexico	3-23	325
Refinery Capacity Being Upped 105,000 Bbl. by Plants Building and Authorized—R. B. Tuttle	3-23	326
REFRIGERATION		
RESEARCH (see specific heads)		
Socony Aids Analysis	2- 9	108
Big Research Outlay by Shell Oil Co.	3-23	161
Catalyststst Research; Additives, Solvents Also Under Study at Plant	6- 1	101
New Field for Isotopes	7-20	51
Spectroscopy Expands Usefulness to Oil Industry—George Weber	8-17	110
New Alkyl Phenol Product Announced	10-12	140
Sinclair Completes New Puerto La Cruz Plant—Dahl M. Duff	10-26	66
RUBBER, SYNTHETIC (also see Butadiene, Butylenes)		
Synthetic-Rubber Report	1-19	34
Rubber Outlook—Criticism of Truman's Plan	3- 2	30
Synthetics Producers Ask Congress to Free Industry for Expansion to Meet Threat of Dependence on Natural Rubber	6-15	68
New Synthetic Rubber	6-29	108
Synthetic Rubber Output Increased by 88,000 Tons Per Year	7-13	52
Rubber-Plant Reactivation	7-20	51
Synthetic Plastics, Fibers, and Rubber—From Petroleum—Dr. E. V. Murphree	7-27	222
Synthetic-Rubber Expansion	8- 3	23
Synthetic-Rubber Step Up—Bertram F. Linz	9-28	56
Phillips Chemical Co. Forms New Rubber Division	9-28	117
Government Calls on Oil Industry to Break Bottleneck in Chemical Essential for Synthetic Rubber and Plastics—Bertram F. Linz	10-19	60
U. S. Rubber Co. Plant at Port Neches Reactivated	11- 2	111
Houston Sinclair Rubber Plant Producing Butadiene	11-23	113
Senate Committee Says "Paper-Work Preparedness" Is Not Adequate; Cites Blunders in Synthetic-Rubber Program—Bertram F. Linz	11-30	37
Esso to Hike Rubber Production	12-28	89
Butadiene Plant Restored at El Segundo Refinery of Standard of California	12-28	89
SAFETY		
New Safety Record Set at Plains Butadiene Plant	2- 9	107
Shell's Martinez Refinery Receives Safety Award	2- 9	108
An Introduction to Modern Fire Control—George F. Prussing	3- 2	59
Plant Supervisors Administer Effective Safety Program at Pan American Refinery—G. M. Dent	3-23	246
Socony-Vacuum Oil Co., Ltd., Is Safety Leader	4-13	138
Aruba Safety Award	5-11	112
New Fire-Control Equipment, Methods Tried Out at Refinery	5-18	181
Simple Safety Measure Reduces Fire Hazard at Tanker-Loading Docks	6-29	68
Fire-Equipment Handbook	6-29	109
Fire Damages Oklahoma Refinery	8-17	155
Dangling Chain Will Disappear From Our Highways	8-31	39
Plant Protection Plans	11-23	113
SALE OF PROPERTIES		
Sherwood Refinery Acquires New Louisiana Facilities	1-19	95
Coastal Petroleum Sells Gulf Refining Facilities	2- 2	87
Pending Merger of Barnsdall Oil Co. With Sunray—Henry D. Ralph	2-23	118
Frontier Sold to Ashland	3- 9	52
Ashland Buys National	4- 6	44
Sinclair Plants Sold	4-13	138
Asphalt Plant Sold	6- 8	96
Sinclair Buys Wood River Plant, Products Pipe Line—George Weber	7- 6	23
Company Buys Pennsylvania Properties	7-13	49
Taylor Absorbs Coastal	7-13	124
Texaco Refinery Purchased	8-17	64
British American Buys Anglo Canadian Oil Property	9-28	117
Gulf Buys Detroit Outlet	12-14	130

	Date	Page
SHALE OIL		
Oil-Shale Patents Listed by U. S. Bureau of Mines	2- 9	108
Swedes Test Colorado Shale	3-16	58
Shale Oil Runs Train	10-12	140
SOLVENT REFINING (also see Lubricants)		
Shell Produces Odorless Paint Solvent	8-24	200
Long Solvent Unit Runs	10-26	132
Concrete Condenser Box Skims Cooling Water	12- 7	102
SOUR CRUDES (see Crudes)		
STATISTICS, REFINING		
1949 Crude Output Summary	1- 5	23
1950 Demand Seen As Nearly 6.5 Million Barrels Daily —E. T. Knight	1-26	194
Forecast of Demand and Supply of Petroleum Products	1-26	195
Refining Record Better Than All-Industries Average in 1949—John C. Casper	1-26	200
Refinery Yields by Years	1-26	200
1950 Looms As Year of Strong Refinery-Expansion Activity—R. B. Tuttle	1-26	209
Tabulation of Active U. S. Refinery-Building Projects	1-26	209
Octane Trend Upward	2- 2	24
Small Refiner Losing About 17 Cents Per Barrel	2- 2	32
Refiners Pay $649,400,000 in Dividends, Report Shows	2-16	142
Lube Production Down in 1949, Mines Bureau Says	3-16	122
Petroleum Refining Maintains High Degree of Stability, Despite Shifting Product Demands—John C. Casper	3-23	292
U. S. Refineries Have Crude-Oil Input Capacity of 6.75 Million Barrels—R. B. Tuttle	3-23	302
Lube Production, Shipments Up in Mid-Continent Area	3-23	365
Demand for Asphalt Dropped in 1949, Report Discloses	3-23	366
Optimism in Refining—George Weber	3-30	66
Deep Rock's Runs Off	4-13	137
Decreased Refinery Runs	4-13	137
Lube Production Up	4-20	277
Refinability of West Texas Crude Oils	4-27	195
Du Pont Survey Shows National Average Octane Rating of Regular-Grade Motor Fuel Now 83.2, Premium Gasoline 89.4	5- 4	59
Lube Production Rises	5-25	177
Fuller's Earth Output	6- 1	102
Output of Oil, Gas Products for Conversion Sets Record	6-22	341
Flow of Refined Products in Line Gains 13 Per Cent	7- 6	81
Cosden's Output Rises	7-13	124
Aviation-Gas Output Down	7-13	125
Light Products Up 14.1 Per Cent Over First Half of 1949—John C. Casper	7-27	186
Refinery Runs Seen As Reaching New Peak Last Half of Year	7-27	187
National Lube Capacity at All-Time High, Plant Survey Shows—George Weber	7-27	190
Refining Capacity Still Headed Upward; More Plants Modernizing—R. B. Tuttle	7-27	195
High Octane for July—John C. Casper	8- 3	24
Current Figures on Resid Supply and Demand Indicate Shortage—John C. Casper	8-31	41
Refinery Output Reached All-Time Peak in August	9- 7	115
ECA Funds Double Capacity of Western Europe Plants	9-14	152
Advances in Petroleum Refining—W. M. Holaday	10-12	84
Heavy Demand Boosts California Refining	11- 9	A-46
Improved Refining, Better Engines Equal 2 Million Barrels Daily	11-16	204
Skelly Oil Successfully Treats 600° E.P. Distillate With Cupric Chloride Slurry	12-14	107
World Supply-Demand Situation Now Viewed With More Optimism—Arthur D. Stewart	12-21	192
Progress Report on Prairie Petroleum	12-21	285
Wildcatting and Refinery Modernization Highlight Activity in Trinidad	12-21	296
The Journal's World-Wide Survey of Oil Refineries	12-21	322
STORAGE		
Storage Problems Change—John C. Casper	4- 6	52
New, Safe, Practical Storage and Transportation Method for Light Hydrocarbons—C. V. Spangler, W. W. Bodle, and W. T. Granquist	4-20	170
Big Storage Project	4-20	277
96,000-Bbl. Oil-Storage Tank Moved to New Location	4-27	196
New Products Terminal at St. Louis	5- 4	163
New Oil Terminal	5-11	111
Improved Technique for Tank Insulation	6- 8	80
Permission Granted for New Savannah Terminal	11- 2	112
Oil-Storage Capacity in U. S. Nears 910,800,000 Bbl.; 50,918,000-Bbl. Increase Over 1948—Bertram F. Linz	12-14	53
SULFUR (also see Crudes; Corrosion)		
Analysis of a High-Sulfur Cracked Distillate—John F. Wilson (A.P.I. Abs.)	5-25	147
Effects of Sulfur in Motor Gasoline on Engine Operation—R. E. Jeffrey, J. B. Duckworth, and E. J. Gay (A.P.I. Abs.)	5-25	149
Road Effectiveness of Tetraethyl Lead as Influenced By Added Sulfur—Donald H. Pulleyblank and Wheeler G. Lovell (A.P.I. Abs.)	5-25	150
Rapid X-ray Determination of Sulfur in Distillate Fuels—Harold K. Hughes and John W. Wilczewski (A.P.I. Abs.)	5-25	150
New York Sulfur Plan Opposed	8-10	117
New York Sulfur Plan Amended	8-17	154
SYNTHETICS		
Coal-to-Oil Pilot-Plant Operations Suspended—George Weber	1- 5	23
Blaw-Knox Established New Fuels Synthesis Department	2- 2	88
Synthetics "Confusion"	3-23	160
Current Status of Synthetic Rubber Butadiene Plants	3-23	298
Synthetic Fuels and Lubricants, New Processes for Making Chemicals From Petroleum Discussed at A.C.S.'s Convention—Leigh S. McCaslin, Jr.	4- 6	42
Liquid Fuel From Peat—Bertram F. Linz	4- 6	47
First Commercial Synthetic Benzene Moving Out of Texas City's Pan American Refinery—George Weber	4-13	60
Brownsville, Tex., Synthetic Gasoline Plant to Begin Operation	4-27	214
Products From Peat	5- 4	163
Nylon Cover From Oil	5-11	112
Synthetics Study by NPC Group Will Review Bureau's Cost Figures	6-22	149
Fungicide From Oil	6-22	342
Synthetics Bill Introduced	7- 6	29
Chapman Asks Extension of 3 Years, $25,000,000 on Synthetics	7-13	51
Synthetics Bill Introduced	7-20	51
Synthetics Program Extended	7-27	157
Synthetic Plastics, Fibers, and Rubbers—From Petroleum—Dr. E. V. Murphree	7-27	222
Bureau of Mines Will Try Out Modified Oil-From-Coal Process and Equipment Late This Fall—Bertram F. Linz	8-31	42
Benzene Needs Studied	8-31	108
Synthetics Research Extension Due	9-14	64
Synthetic-Fuel Program Continuation Assured by Congressional Appropriation	9-21	176
SYNTHESIS		
Government Calls on Oil Industry to Break Bottleneck in Chemical Essential for Synthetic Rubber and Plastics—Bertram F. Linz	10-19	60
Refiners Review Possible Processes for Making Benzol and Get Ready for an Interplant Program as With Alkylate—George Weber	10-19	60
Kansas Researchers Report Experiments Which Give Promise That Benzene Can Be Synthesized Economically From Normal Hexane	10-19	61
Substantial Synthetic-Fuels Industry Seen for Future	11-16	184
Sovaloid Rationing Lifted	12- 7	126
Benzene Shortage Forecast	12-21	343
Glycerin Supply Short	12-21	343
TECHNOLOGY, QUESTIONS ON (a series) by W. L. NELSON		
Chemicals Used by Petroleum Industry	1- 5	74
Liquid Natural-Gas Fire	1- 5	74
Aniline Point and Other Properties	1-12	79
Correction of Heat of Decomposition in Catalytic Cracking	1-26	355
How Test Fuel-Oil Additives?	1-26	355
Reboiled Absorber	1-26	355
Why Base Thermal Efficiency on Net Heating Value?	2- 2	74
Kauri Butanol Number	2- 9	90
Efficiencies Based on Gross and on Net Heating Values	2- 9	90
Viscosity of Residuum Blends	2-23	195
Small Exchanger Costs	2-23	195
Formaldehyde for Sulfide Corrosion	2-23	195
Asphalt Manufacture	3- 2	83
Compression Process Is Obsolete	3- 2	83
Character of Crude Oils	3- 9	94
Nickel Plating	3-16	93
Expensive Corrosion	3-16	93
Some Ceramics Superior to Metals for Extreme Temperature	3-16	93
Graphic Corrosion-Resistant Glove Valve	3-16	93
Character of Base of Crude Oils or Their Products	3-23	348
Alcohol As Motor Fuel	3-30	96
Catalytic Unit Inspections or Turnarounds	3-30	96
Dirty Overhead Stocks	3-30	96
L.P.G. Tower Arrangement	4- 6	73
Flue Gas Volume	4- 6	73
Does Polymerization Destroy Valuable Antiknock Hydrocarbons?	4- 6	73
Paraffinic Oils	4-20	248
Small Exchangers Used on Engines; Cost Is Low	4-20	248
Smoke Point	4-27	200
Intermediate Base Crude Oils	5- 4	147
Ductile Iron—Century's Greatest Advancement in Art of Cast Iron Manufacture	5-11	102
Forging Terms or Operations	5-11	102
Heating Value of Fuels Marketed Today	5-18	165
Gravity of Oils Up to 300° F.	5-18	165
Heat Losses From Asphalt Tanks	5-25	158

	Date	Page
Lube Oil Additives Again	5-25	158
Does Polymerization Destroy Valuable Antiknock Hydrocarbons?	5-25	158
Outlet Temperature of Stacks	6- 1	84
Fuel Oil Specifications	6- 1	84
Safeguards Against Crankcase Explosions	6- 1	84
Viscosity of Residues of Crude Oils	6-22	329
Heating Value of Petroleum Coke	6-22	329
Relation of Cracking Yields to Viscosity of Cracked Fuel Oil	6-29	88
Petrochemical Manufacturers	6-29	88
Operating Cost Index	7-13	98
Octane Numbers by Aviation Methods	7-13	98
Cracking Low-Gravity Stocks	7-20	99
Gasoline Reforming by Platforming	7-27	336
Gasoline Content of Crude Oils	8- 3	67
Composition of Ethyl Fluids	8- 3	67
Compression Ratio and Octane Number	8- 3	67
Technical Books or Literature	8-17	139
Liquid Volume of Noncondensables	8-17	139
Stability of Jet Fuels in Storage	8-17	139
Distillations of Crude Oils or High-Boiling Components	8-24	169
Gasoline Volatility Changes Since 1920	8-24	169
Height of Packing for Hydrocarbon Absorbers	9- 7	88
Effectiveness of Additives in Various Kinds of Oils	9- 7	88
Diesel-Fuel Yields	9-14	100
Penetration of Asphalt Blends	9-21	369
Cost of Vacuum Plants	9-28	98
Laboratory Crude-Oil Evaluation	10-12	121
Heating Coils for Oil Storage Tanks	10-12	121
Future of Thermal and Catalytic Cracking	10-19	125
More on Crankcase Explosions	10-26	118
Protection of Asphalt Tanks From Fire	10-26	118
Drilling Changeovers	11- 2	91
Instructions on Boiling-Out of a Boiler	11- 2	91
Saybolt Distillation of Crude Oil	11-16	362
Evaluating Jet Fuels	11-16	362
Care of Wire Rope	11-23	84
Composition of Gases and Crude Oil	11-23	84
Vanadium in Crude Oils—1-Occurrence	11-30	88
Miscibility of Alcohol-Gasoline Blends	11-30	88
Vanadium in Crude Oils—2-Ash Analysis	12- 7	105
Vanadium in Crude Oil—III Effect of Ash on Refractories	12-21	330
Crude Breakup Throughout World	12-21	330
Vanadium in Crude Oils—4, Effect of V_2O_5 on Refractories	12-28	83
Effect of Carbon Black on Rubber	12-28	83
Bottom Temperatures	12-28	83
TESTING (also see Analysis; Laboratory)		
Copper-Strip Test—A Study of Current Methods of Interpretation and An Examination of Proposed New Procedures—F. W. H. Matthews and D. F. Parsons (A.P.I. Abs.)	5-25	147
Magnetic-Particle Inspection—Applications in the Petroleum Industry—W. E. Thomas	6- 8	53
TETRAETHYL LEAD (see Fuels)		
TREATING (also see Crudes; Desalting)		
Bender Lead Sulfide Treating Process—Ira T. Fritz	2-23	180
Lead Sulfide Treating Process	3-23	191
Unisol Treating Process	3-23	194
Mercapsol Treating Process	3-23	195
Phenol Treating Process	3-23	200
Trends in Treating—Charles W. Rippie	3-30	110
Modern Trend in Industrial Water Treatment—R. C. Ulmer and E. A. Lowenthal	4-13	92
Neutralization of Spent Caustic With Flue Gas—Kenneth M. Brown and Soma Kurtis	7-20	81
New Engine-Wear Test—George Weber	7-27	162
Fletcher Treats Stove Distillate for Color Stability	8-31	60
WATER		
Cooling-Water Slime—R. B. Wise	2-23	170
Modern Trends in Industrial Water Treatment—R. C. Ulmer and E. A. Lowenthal	4-13	92
WAXES		
Wax Manufacturing Process	3-23	206
Wax Fractionation Process	3-23	207
Wax Committee Named	4-27	215
Wax Made From Shale Oil	9-14	153
WELDING		
How to Control Welding Quality in a Petroleum Refinery—A. F. Blumer	10-19	94
First Electric-Welded High-Pressure Vessels Ever Fabricated Complete 25 Years of Refining Service	12-14	101

Pipe Line

	Date	Page
COMMUNICATION		
Multichannel Microwave Radio Relay System—J. D. Munton	2-16	88
Texas Gas Orders Microwave Equipment	3-16	134
Transco Will Use Steam-Turbine Centrifugal Compressors: May Have Unique Microwave Communication—Paul Reed	3-30	59
Two-Way Radio Used to Test Michigan-Wisconsin Line	3-30	138
Transcontinental, Mid-Valley Announce Plans for Microwave Communications Systems—Paul Reed	4- 6	41
Transcontinental Survey	4-20	263
Microwave Study—Leigh S. McCaslin, Jr.	4-27	70
Microwave Equipment for 1,840-Mile Gas Line	5-18	171
Radio Facilities Sought	6-29	95
Shell Inaugurates Automatic Product-Transmission System	7-20	56
Radio-Bid Decision	7-20	122
Radio Use in Petroleum Operations Double in Past Year—George Weber and Leigh S. McCaslin, Jr.	8-24	91
Mid-Valley Operates 1,000-Mile Microwave Relay System—Dale Samuelson	9-21	302
Remotely Controlled Pipe-Line Stations—S. S. Smith	10-26	82
Trunkline Gas Co., Survey for Microwave System	11- 2	99
Unattended Pipe-Line Stations Cut Costs, Symposium Told	11-16	186
Problems of Automatic and Remote Controls in Products Pipe-Line Operations Discussed at Tulsa Pipe Liners Club	11-30	92
Novel Communication Method to Be Installed Near Diablo Gorge	12- 7	129
CONSTRUCTION AND EQUIPMENT (Lines)		
Doping Equipment Used on Western Section of Texas Gas Transmission Corp. Pipe Line	1- 5	48
Super-Inch—Robert Harwick	2- 2	50
New Long-Radius Elbow Features Goleta 20-in. Line	2- 9	70
Pipe Liners' Big Year—Paul Reed	3-23	159
Large-Diameter Welded Pipe Mill Operating on Gulf	3-23	355
Texas Gas Expansion Will Be Completed This Year	3-30	137
United Gas Planning Huge Expenditures on Expansion	3-30	137
T.G.T. Announces Details of Plans for Revamping 1,450-Mile System	4- 6	45
Toughest Pipe Line—Paul Reed	4-13	66
The Story of Transcontinental—Claude A. Williams	5- 4	81
. . . and the Story of the Builders—Ray C. Fish	5- 4	84
Pipe-Laying Methods of Transcontinental—Walter H. Davidson	5- 4	90
Midwestern Completing Line	6- 1	90
80-Mile Line Contracted	6-15	144
Pipe Lining on the Gulf Coast—Paul Reed	6-22	194
Mid-Valley Takes Advantage of Opportunities for Savings in Investment and Operation in Building Big-Inch Carrier—C. O. Willson	7-20	52
Shell Inaugurates Automatic Product-Transmission System	7-20	56
Ocean-Line Spread Formed	7-20	120
9,000 Miles of Lines Now Building in All Parts of World—William P. Sterne	7-27	202
Peat Bogs Present Problems in String and Laying Pipe for Lakehead Line in Minnesota Swamps—William P. Sterne	8-10	46
British Pipe Ordered	8-10	101
SoCal Gas Co. Uses Human Relations to Create Good Will Out of Disruptive Job of Pipe Lining Through City Streets.—D. H. Stormont	8-17	62
Here's the What, When, Where, Why of Flanges—O. L. Lewis	8-17	88
11 Steps in Pipe-Line Construction	9-21	192
Canadian Interprovincial Pipe Line Case History—Loren F. Kahle	9-21	206
Nature's Forces Help in Making Winter River Pipe-Line Crossings—F. A. Madill	9-21	230
Design and Construction of Atlantic's West Texas-Gulf Line—Lester M. Goldsmith	9-21	244
The Plow That Pays—H. B. Dempsey	9-21	316
How Northern Natural Achieves High-Quality Welds—L. J. Cunningham	9-21	343
H. C. Price Co. Projects Cover Wide Area Over U. S.	10-19	131
Midwestern Constructors, Inc., Reports on Pipe-Line Activities	10-19	132
United Gas Line Co. Will Lay New Lines to Meet Demands	10-19	141
Data on Mileage, Diameter, and Fill of Crude and Products Lines Are Given zy Bureau of Mines	11- 2	32

	Date	Page
Large-Diameter River Crossings—F. Hill Sanders, Jr.	11-16	329
Portable Automatic Sampler—W. E. Roads	12- 7	89
CONSTRUCTION AND EQUIPMENT (Pump Stations)		
T.G.T. Announces Details of Plans for Revamping 1,450-Mile System	4- 6	45
Salt Lake Pipeline Co. Pump Station Planned	5-18	172
Standard Oil Co. (Ind.) Plans New Booster Station	6- 8	103
Pump Stations Under Way	6- 8	103
New Compressor Station	6-15	144
T.G.T. Seeks Horsepower Increase	6-29	111
Stations Put in Service in Oklahoma	7- 6	79
Shell Inaugurates Automatic Product-Transmission System	7-20	56
Michigan-Wisconsin Plan Expansion Program	7-27	344
11 Steps in Pipe-Line Construction	9-21	192
Pump-Station Operation on Salt Lake's Product Line —John P. Newton, Jr.	9-21	323
Pan-Am Station Started Near Sterling City, Tex.	9-28	113
Design of an Unattended Automatic Booster Station —J. P. Hedlin	10-19	86
Remotely Controlled Pipe-Line Stations—S. S. Smith	10-26	82
Shell Builds Pump Unit	11-23	106
Tapline's Pump Stations—Paul Reed	12-28	71
CONSTRUCTION, NEW (U. S.) CRUDE OIL LINES		
Texas-Empire Contracts for 42-Mile, 16-in. Line	1-12	87
Contract Let for 25-Mile Michigan Crude-Oil Line	2- 2	94
Mid-Valley Contracts for Longview-Haynesville Job	2-16	135
Pan American to Construct Scurry County Crude Lines	2-16	135
Gulf Lays Lateral to Snyder, Tex., Area	2-16	136
Texas Pipe Line Co. to Construct 42-Mile Line	2-23	199
Mid-Valley Contracts for Seven Pipe-Line Stations	3- 2	91
Stanolind to Extend Line Into North Scurry Region	3- 2	91
Scurry Outlet to Be Built by Texas-New Mexico Firm	3- 9	112
Interprovincial Making Plans for 1951 Projects	3-16	131
Pan American to Build 80-Mile, Scurry Outlet	4- 6	102
New British American Line	5-18	171
Phillips Plans New Line	5-25	171
Ohio Plans New Line	5-25	175
Humble's New 370-Mile 18-in. Oil Pipe Line—Leigh S. McCaslin, Jr.	6-29	58
Big New Pipe Line From Rocky Mountains to Wood River and Midwest Refineries Is Planned by Five Companies	8-31	37
Group Plans Texas to California Pipe Line	8-31	40
Service Lays Wyoming Line	8-31	95
New Scurry Crude Line	8-31	96
Platte Pipe Line Launched	9- 7	43
Humble Increasing Capacity	9- 7	105
Los Angeles Firm Seeks Approval of 24-in. Crude Line and Parallel Products Carrier From Texas to West Coast—D. H. Stormont	12-21	145
CONSTRUCTION, NEW (U. S.) GAS LINES		
Northern Natural Contracts 597 Miles of Looping	1- 5	83
Tennessee Gas Transmission Has 1,625-Mile Program	1- 5	84
Plains Natural Starts 78-Mile Hugoton Project	1- 5	86
United Authorized to Build 105-Mile Natural-Gas Line	1-12	95
Algonquin Proposes Gas Line in New England Area	2- 2	91
Contract Let for New Gas Line in Tennessee Area	2- 9	93
Texas Gas in Ohio	2-16	74
Montana-Dakota Contracts 340-Mile, 12-in. Line	2-16	135
Pipe-Line Facilities Are Authorized in Virginia	2-16	138
Associated to Build Gas Line in Missouri	2-23	199
Transcontnental Awards Gathering-Line Contracts	3-23	356
Texas Illinois Gas Line to Be Started by October	3-30	135
Transco Contracts 616 Miles of Line	4- 6	101
200-Mile Link to Be Built by Commonwealth Natural	4-13	124
Alabama Natural Gas Co., Inc., Seeking New Line	4-13	127
United Laying Line	4-20	263
Georgia Line Proposed	4-20	263
FPC Gives Approval to Boost Transco Line Capacity	5- 4	167
Southern Natural Seeks Work on 237 Miles	5- 4	167
FPC Approves Trunkline, Panhandle Eastern Plans	5-11	46
791-Mile Line Planned	5-11	49
Under-River Lines	5-11	115
Associated Plans Line	5-11	116
California Line Started	5-18	172
Southern's Natural Gas Proposal O.K.'d	6- 1	90
New York Natural Plans	6- 8	104
24-Mile Line Approved	6- 8	106
Joint Venture Price-Morrison to Build Loops for Tennessee Gas	6-15	143
Offshore Pipe Line—Leigh S. McCaslin, Jr.	6-22	152
Corpus Christi-Joliet Gas Line Approved	6-22	332
Southern Lets Contracts	6-22	332
Associated Line Approved in Southeastern Missouri	6-22	332
Gas for Chicago—C. O. Willson	6-29	39
Plans Announced for 30-in. Gas Line to Southern Michigan—Leigh S. McCaslin, Jr.	6-29	41
Work Let on 1,238 Miles of Texas-to-Illinois Line	6-29	95
Michigan-Wisconsin's Line Expansion Is Authorized	7- 6	79
Expansion Is Authorized	7-13	108
Line Apparently Approved	7-13	108
El Paso Line Approved	7-20	57
Ocean-Line Spread Formed	7-20	120
Commonwealth Natural Line	7-20	120
Tennessee Facilities O.K.'d	7-20	122
Texas Illinois Lets Work for 1,331 Miles of Line	8- 3	83
Texas Illinois Project	8-10	101
Ohio Line Authorized	8-10	111
Mississippi River Fuel to Build 40-Mile Gas Pipe-Line Extension	8-17	147
Transco Obtains Loan to Expand Capacity	8-24	184
Ground-Breaking Ceremony for Texas-Chicago Line	8-31	96
New Colorado Project	8-31	98
Texas Illinois Plans 37 Miles of Laterals	9- 7	106
Columbia Gas Units to Build New Facilities	9- 7	106
Kansas-Nebraska Natural Gas to Enlarge Pipe Lines	9- 7	107
Pipe to Be Reclaimed	9-14	140
New Utility Lines to Be Built by Equitable Gas Co.	10-12	131
New Ontario Gas Line	10-12	131
Humble Lets Line Contract	10-26	134
New West Virginia Line	10-26	134
Westcoast Transmission Co. Plans Northwest Line	11-16	370
Mississippi-Pennsylvania Gas System With Capacity of 476 Million Cubic Feet Daily Is Planned by Texas Eastern—Paul Reed	12- 7	56
Southeastern Michigan Gas Pipeline Project O.K.'d	12- 7	127
Service Lines Proposed by Kansas-Nebraska Natural Gas Co.	12- 7	129
2,100-Mile Gas Line With Capacity of 350,000 M.c.f. Daily Is Planned From Texas Gulf Coast to Pacific Northwest—Kenneth B. Barnes	12-21	146
CONSTRUCTION, NEW (U. S.) PRODUCTS LINES		
Great Lakes Contracts for Tulsa-Kansas City Line	1- 5	83
Two Contracts are Let for Boise-Pasco Products Line	1-26	363
Phillips Petroleum Will Extend Products Line	2- 2	91
Frontier Studies Plans for Cheyenne-Omaha Line	2-23	199
Great Lakes Starts Work on 235 Miles of Line	3- 2	91
Tuscarora to Rebuild 360-Mile System	7- 6	77
Plantation Plans New Line	7-13	106
Miami Valley Corp. to Build 58-Mile Products Line	7-27	343
U. S., Canadian Products Line to Start	7-27	344
Common Carrier Products Line Planned From Gulf to Chicago	9-28	55
Triangle Pipe Line Plans 100-Mile Extension	9-28	115
tion Co. Line	11- 2	29
Williams Bros. Gets Job of Laying $7,000,00 Planta-Line	11- 2	29
Los Angeles Firm Seeks Approval of 24-in. Crude Line and Parallel Products Carrier From Texas to West Coast—D. H. Stormont	12-21	145
CONSTRUCTION, NEW (FOREIGN) CRUDE-OIL LINES		
Extra Work for Montreal Line Contracted by Latex	1- 5	86
Interprovincial Proposes Redwater-Edmonton Line	3- 9	111
Canadian Line to Start	4-20	263
Italian Line Planned	4-20	263
Shell Plans Crude Line in Venezuela	8-17	73
Winnipeg Line Under Way	8-17	148
Bechtel Work Progresses on Interprovincial Pipe Line	8-17	148
Logistics Posed Real Problems During Building of Tapline—Paul Reed	9-21	349
CONSTRUCTION, NEW (FOREIGN) GAS LINES		
West Coast Line From Canada—Paul Reed	2- 2	28
CONSTRUCTION, NEW (FOREIGN) PRODUCTS LINES		
Colombia Plans 112-Mile Products Line Into Bogota	6- 1	47
120-Mile Puerto Salgar-Bogota Line Surveyed in Colombia	8-17	73
Tropical Finances 105-Mile Products Carrier to Cali, Colombia	8-31	47
CONSTRUCTION, PROGRESS (U. S.) CRUDE-OIL LINES		
Tabulation of Principal Domestic Crude-Oil Pipe-Line Construction Projects—Paul Reed	1-26	229
General Petroleum Completes 14-Mile Line	2-16	136
Humble West Texas Line Work Progresses	4- 6	102
Mid-Valley Progress	5- 4	167
Mid-Valley Section to Be Completed by August 1	5-25	172
Humble Line Progressing	6- 8	103
Mid-Valley to Complete 120-Mile Section Soon	6-22	332
Texas Empire Crude Line	7-20	119
Mid-Valley Progresses	8- 3	87
Richfield Oil Corp. Will Soon Complete Final Leg of New Trunkline to Move Cuyama Field Crude to Refineries—D. H. Stormont	8-17	64
CONSTRUCTION, PROGRESS (U. S.) GAS LINES		
Transcontinental's Line to Deliver Gas by November 1	1-19	87
Transcontinental Delays South Section Contracts	1-19	91
"Toughest Inch" Completed as Unusual Line Project	2- 2	92
Initial Deliveries of Gas Made Through 800-Mile Line	2-16	138
Transcontinental to Let South Section Contracts	3-16	131
Mid-Valley Construction	3-23	356
Construction Offices	3-23	356
Texas Eastern Laying Hankamer, Tex., Line	4- 6	101
Montana Work Progressing	4-20	264
T.G.T. Section Is Completed	5-11	117
Work on Louisiana Lines Progressing	5-18	171
P. G. & E. Line Progresses	5-25	171
33-Mile Line Completed	6- 8	103
Montana-Dakota Line Under Way	6-22	336

	Date	Page
Line Nearing Completion in Canada	6-22	336
World's Longest Pipe Line Already is Half Completed	7- 6	24
Southern California Line	7- 6	77
13-Mile Line Completed	7-20	119
Latex Making Progress on Gas Lines in Louisiana	8-10	101
Project Nears Finish on T.G.T. Expansion Program	9-21	178
Offshore Gas Pipe Line Presented Variety of Unusual Problems to Builders—Leigh S. McCaslin, Jr.	9-21	277
Unusual Practices Being Followed in Constructing Trunkline Gas Artery—Leigh S. McCaslin, Jr.	9-21	318
Parkhill Truck Co. Gets Contract From Midwestern Constructors	9-21	375
New 83-Mile Loop Completed on Texas-California 30-in. Line—D. H. Stormont	9-28	100
Construction on 1,832-Mile Texas-New York Line Reaches Highest Level; First Gas to Be Delivered by December 1—Leigh S. McCaslin, Jr.	10-19	69
Latex Completes Laying Job	10-26	134
Work Started on Union Gas Co.	11- 2	100
Laying of Pipe Under Hudson and Harlem Rivers by Transcontinental Gas Pipe Line Corp., Marks Final Phase of Construction on Texas-New York Gas Line	11- 9	52
"Super Inch" Gas Line Is Completed—D. H. Stormont	11- 9	A-54
Greenville Bridge Used for River Crossing by T.G.T.; City Bonds Retired	11-23	46
New York City to Get Gas From Transco Regularly on December 12—Dahl M. Duff	11-23	105
T.G.T. President Says Gulf Coast Gas Will Flow Into New England by Labor Day, 1951—Leigh S. McCaslin, Jr.	12-14	57
Transco Scheduled to Deliver Natural Gas to New York Area This Week	12-28	37
Oklahoma Natural Projects Total 93 Miles of Line	12-28	93
Kansas-Nebraska Work Plans 279 Miles of Loops, Replacements, and Extensions	12-28	93
Great Falls Natural-Gas Pipe Line Completed	12-28	93
CONSTRUCTION, PROGRESS (U. S.) PRODUCTS LINES		
Salt Lake Products Line	6- 1	89
Pan-Am Line Dedicated	9-14	140
Pasco Line Completed	9-21	375
Plans Under Way for Buckeye Products Line	11-30	92
Burden Starts Project for Texas Pipe Line Co.	12-14	117
CONSTRUCTION, PROGRESS (FOREIGN) CRUDE-OIL LINES		
809 Miles of Pipe Received in Field for Tapline Project	4-27	207
Bechtel Tapline Work	7-27	343
Williams Bros. Completing Crude-Oil Line in Canada	8-24	183
Most-Hampered Trans-Arabian Line Starts Delivering Crude to Tankers in December—Paul Reed	9- 7	46
Alberta-Great Lakes Crude Line Nears Completion	9- 7	105
Tapline Pipe-Layers Surmount Problems in Traversing Mountains and Desert—Paul Reed	9-14	109
Trans-Arabian Tapline Nearing Completion	9-14	140
Interprovincial Job Said to Be Fastest Ever Done	9-28	55
Interprovincial Opens First Section of Crude Line to Regina, Sask.	10-12	66
Final Weld Made on Interprovincial Edmonton-Great Lakes Pipe Line	11- 9	66
Iraq Line Nearly Complete	12-14	117
CONSTRUCTION, PROGRESS (FOREIGN) GAS LINES		
Canadian Line Approved	3-23	356
R.A.P. Encounters Unusual Problems in Laying 165-Mile Toulouse-Bordeaux Gas Line—Jean P. LaCroix	6- 8	62
Natural-Gas Line Opened in Northern Alberta	11- 9	66
CONSTRUCTION, PROGRESS (FOREIGN) PRODUCTS LINES		
CORROSION		
Corrosion Short Course for Pipeliners Set Next Month	1-26	363
Pipe-Line Engineers Acclaim First Corrosion Course —Paul Reed	3- 2	24
New-Type Pipe Made of Styrene-Base Plastic	3-30	70
Corrosion Problems Described at Annual N.A.C.E. Meeting—Paul Reed	4-13	68
Information on Corrosion Resistance Being Analyzed by Bureau	4-13	129
Water-Side Deterioration of Diesel Engine Cylinder Liners—F. N. Speller and F. L. LaQue (N.A.C.E. Abs.)	4-27	190
Internal and External Corrosion Experience in Shell's Products Pipe Lines—S. S. Smith, E. H. Rush, and W. J. Curry (N.A.C.E. Abs.)	4-27	190
Surface Potential Method of Corrosion Survey on Pipe Lines—O. W. Wade (N.A.C.E. Abs.)	4-27	198
Performance of Magnesium Galvanic Anodes in Underground Service—Harold A. Robinson and Oliver Osborn (N.A.C.E. Abs.)	4-27	198
Some Characteristics of Mastic-Type Pipe Coatings—Gordon N. Scott	7-27	283
The Fundamentals of Galvanic Corrosion—A. B. Lauderbaugh	8-17	97
Cost, and Savings Effected by Cathodic Protection for a Short Section of Line—James F. Stephenson	9-21	240
Surveying Pipe Lines for Reconditioning Data Using Surface Potentials—James R. Cowles	9-21	270
How Gulf Pipe Line Locates 'Hot Spots' on Crude-Oil Lines—M. C. Callahan	9-21	312
Internal Pipe-Coating Techniques . . . A Review of Recent Developments—J. K. Alfred	11-16	266
New Corrosion Inhibitor Gets Job Done—K. T. Feldman and F. M. Watkins	11-16	340
New Developments in Coatings and Cathodic Protection—Carlton L. Goodwin	11-16	355
Pipe-Line Corrosion Course	12-28	93
ENGINEERING AND RESEARCH		
Interstate Completes Elk Basin Area Crude-Oil Pipe Line—Paul Reed	1-19	50
Lavaca to Lay Offshore Aluminum Pipe Soon	1-26	366
Test Bomb Used for Study of Pressure-Wave Surges	1-19	92
Portable Pipe Line on River Now in Operation	2- 1	94
Aspects of Gas Heat Exchangers As Applied to Transmission-System Problems—F. S. Young	2- 9	84
Electrolytic Survey Being Made for Line Protection	3- 9	111
New-Type Pipe Made of Styrene-Base Plastic	3-30	70
Two-Way Radio Used to Test Michigan-Wisconsin Line	3-30	138
New Method Developed to Identify Interfaces in Product Pipe Lines—A. P. Howell and R. K. Bond	7-13	66
Slack Loop Practice—T. B. LaRock	7-13	99
Shell Tells How 'Push Button" Products System Works—Dahl M. Duff	7-27	158
Alcoa's New Plant Uses Natural-Gas Power Source —Leigh S. McCaslin, Jr.	8- 3	58
1950 Census of Pipe-Line Construction Contractors	9-21	188
Quarter-Century of Pipe-Line Developments (1925-50)	9-21	190
A Method for Computing Size of Tanks at Product Pipe-Line Terminals—Spencer A. Hallberg	9-21	214
The Internal-Combustion Turbine in Liquid and Gas Pipe-Line Service—C. C. Keane	9-21	309
Directory of Pipe-Line Contractors	9-21	350
Instruments for Pipe-Line Pressure-Surge Studies—F. O. Stivers	10-12	116
FEDERAL POWER COMMISSION (NEW GAS LINES)		
Eastern Natural Withdraws New England Pipe-Line Bid	1-19	87
FPC Examiner Approves New York Natural-Gas Projects	2- 9	93
Transcontinental Permitted to Change Size of Line Pipe	3- 9	111
El Paso Authorized to Make Changes in Line Facilities	3- 9	115
East Tennessee Natural Seeks to Build 139 Miles	3-23	355
Tennessee Gas Transmission River Crossings Approved	3-23	355
Carolina Natural Seeking to Build 372-Mile System	3-23	355
Iroquois Gas Seeking to Build 23-Mile Pipe Line	3-30	135
New York State Natural Gas Corp., Expansion Authorized	4-13	124
Algonquin Hearing Set	5-25	172
El Paso Natural Seeks Authorization of Line	6- 1	89
Piedmont Proposal Denied	6- 1	89
FPC Reorganization	6- 8	93
Michigan-Wisconsin Plan	6- 8	93
Associated Bid Advanced	6- 8	93
Plans for Pipe Line Dropped	6- 8	103
Massachusetts Mayors Urge Line O. K.	6-29	96
T.G.T. Motions Denied	6-29	96
Jersey Central O.K. Amended	6-29	111
Carolina Hearing Under Way	7-13	106
Cities Service Application Is Withdrawn	7-20	120
FPC Thumbs Down on Construction Proposals for New England Gas Lines	10-12	57
FPC Gets New Proposals by Firms to Serve New England With Gas	10-19	61
FPC Approves 150 Miles New Pipe Lines to Serve Storage Area	11- 9	193
Arizona Lines Approved by FPC	11- 9	193
Westcoast Transmission Plans Northwest Line	11-16	370
Service Lines Proposed by Kansas-Nebraska Natural Gas Co.	12- 7	129
GATHERING AND STORAGE		
Great Lakes to Take More Products Through System	4-13	127
Phillips Gas-Gathering System in Texas 60 Per Cent Completed	5-25	172
Continental Oil Co. Installs Remote Reading Gages at Ponca City Tank Farm—F. C. Whiteside	9-21	297
Edmonton Crude Storage Starts	9-21	375
MAINTENANCE AND PROTECTION (LINE)		
Doping Equipment Used on Western Section of Texas Gas Transmission Corp. Pipe Line	1- 5	48
Field Performance of Modern Asphaltic Pipe Coatings—Gordon N. Scott	1-12	68
H. C. Price Co. Coating Contract Let	4-13	130
Planes Take Over Pipe-Line Work	4-20	264
Slack Loop Practice—T. B. LaRock	7-13	99
Some Characteristics of Mastic-Type Coatings—Gordon N. Scott	7-27	283
"Spot" Reconditioning—W. Johnson	8-10	61
Electric-Arc Welding of Cast Iron—A. M. Hill, F. W. Zilm, and C. E. Spencer	9-21	232
Cost, and Savings Effected by Cathodic Protection for a Short Section of Line—James F. Stephenson	9-21	240
Surveying Pipe Lines for Reconditioning Data Using Surface Potentials—James R. Cowles	9-21	270

	Date	Page
How Gulf Pipe Line Locates "Hot Spots" on Crude-Oil Lines—M. C. Callahan	9-21	312
Meter Maintenance—J. J. Harris	9-21	334
Gas Transmission-Line Maintenance—L. W. Curfman	11-30	84
MAINTENANCE (STATION)		
Improved Compressor Operated by Tennessee Gas Transmission at Louisiana Station—Roy F. Carlson	5-18	124
ON THE LINE (write-ups of pipe-line contractors)		
Midwestern Constructors, Inc., Tulsa	9-14	142
Oklahoma Contracting Corp., Dallas	9-28	114
Sheehan Pipe Line Construction Co., Tulsa	10-12	132
Trojan Construction Co., Oklahoma City	10-26	137
Smith Contracting Co., Odessa, Texas	11- 9	194
R. H. Fulton, Lubbock, Texas	11-23	107
Tulsa Construction Co., Tulsa	12- 7	131
Bechtel Corp., San Francisco	12-21	338
PIPE LINE OPERATION (GAS)		
Tennessee Gas Transmission Plans Additional Expansion	3-16	132
Texas Gas Orders Microwave Equipment	3-16	134
Gas-Pipe-Line Use of Lightweight Gas Turbine Believed Promising—Leigh S. McCaslin	4-20	139
The Story of Transcontinental—Claude A. Williams	5- 4	81
3 Texas Pipe Lines Being Raised	8-24	184
PIPE LINE OPERATIONS (CRUDE AND PRODUCTS)		
Heavy Flow Reported at New River-Lock Pipe Line	2-23	201
Radioactive Pipe Line Tracer	6-22	154
Pipe-Line Flow Declines in First Quarter	6-22	334
Pipe Lines Increase Flow in First 5 Months of 1950	8-10	102
Mid-Valley Pumps Oil	8-31	98
Block Method of Transporting by Pipe Line Several Grades of Oil, Gasoline, or Other Products—W. L. Shannon	9-21	284
Pump-Station Operation on Salt Lake's Product Line—John P. Newton, Jr.	9-21	323
Public Views New Home of Service Pipe Line Co.—Paul Reed	10-26	60
Economics of a Products Pipe Line . . . A Study of a Hypothetical Artery—R. H. Lynch	11-16	214
PRACTICAL SUGGESTIONS		
Tulsa Pipe Liners Meet	4-27	208
Pipe Liners Finish Studies	6- 8	109
"Spot" Reconditioning—W. Johnson	8-10	61
Electric-Arc Welding of Cast Iron—A. M. Hill, F. W. Zilm, and C. E. Spencer	9-21	232
How Northern Natural Achieves High-Quality Welds—L. J. Cunningham	9-21	343
Crankcase Explosions—F. V. Cook	11-16	291
SAFETY		
Shell Safety Winner	5-11	117
Shell Reduces Eye-Injury Costs 81.7 Per Cent During 4-Year Period by Following Program of Prevention—D. M. Farrell	10-12	99
Second National Safety Award Won by Service Pipe Line Co.	11- 2	100
Crankcase Explosions—F. V. Cook	11-16	291
SALES OF PROPERTIES		
Signal Pipe Line Corp. Is Merged With Macco Corp.	1-12	87
Wilcox Oil Buys Shell's Cushing Gathering System	1-19	92
Standard (N. J.) Reduces Ownership in Plantation	2-23	200
Southern Contracting Co. Acquired Whitaker Firm	3- 2	91
Texas Southern Succeeds Southern Contracting Co.	4- 6	102
Southern Pipe Line Co. of Corpus Christi Acquires New Systems	4-13	129
Gathering Lines Bought	6-15	144
Sunray Buys Lines	7- 6	81
Pipe-Line Company Formed	8- 3	26
Independent Natural Gas Asks Approval to Sell Line	9- 7	107
Sun-Yount Lee Line Sold	9-14	140
Arkansas Pipe Line Sold	10-12	134
Bell Acquires System	10-26	136
Pipe-Line Sale Asked by Natural Gas Pipeline Co. of America	11-30	102
Pipe-Line Sale Asked by Hope Natural Gas	12- 7	131
TANK CARS		
Oil Industry Has Trouble Obtaining Containers and Tank Cars—Bertram F. Linz	10-26	55
Plans Studied to Build More Oil Tank Cars as Shortage Looms	10-26	55
TANKERS		
Tanker Growth in 1949	2- 9	54
Sale of Idle Tankers to Foreign Operators Asked	3- 9	57
Largest Great Lakes Tankers	7-20	58
Navy Needs Tankers	8-10	38
Tanker Charter Rise Indicates High Level of Oil Activity	10- 5	129
Short Steel Supply May Curtail Quick Expansion of Tank-Barge Fleet	12-21	139
U. S. Tanker Fleet Is Faster, 2,630,000 Tons Larger Than in 1939	12-21	145
TERMINALS; LOADING FACILITIES		
New Terminal Facilities for Shamrock Oil & Gas Corp.	6- 1	89
Switch-Button Control at Basin-Ozark System Terminal—R. B. Tuttle	8-17	82
Construction of Sidon, Lebanon, Marine Terminal of Trans-Arabian Pipe Line Co.—Paul Reed	9-21	210
A Method for Computing Size of Tanks at Product Pipe-Line Terminals—Spencer A. Hallberg	9-21	214
TRANSPORTATION, GENERAL		
ICC Reports Decrease in Traffic, Revenue of Lines	3- 2	92
Fork Lift Trucks—D. H. Stormont	3-30	91
Congressman Asks for Railroad-Type Controls on Gas Pipe Lines	4-13	65
Flow of Oil in Lines Down During 1949	4-27	211
Airport Pipe Lines	5-11	117
Products Flow in Lines Up	6- 8	103
Kansas Runs Show Gain	6- 8	104
Transport Committee Named	8-10	43
Transport Groups Named	8-31	40
Industry's Own Facilities Half Those of All Nation's Railroads	11-16	208
TRANSPORTATION, FOREIGN		
Transportation of Gas in Canada Would Be Profitable	3- 2	95

Natural Gas

	Date	Page
BUSINESS, ECONOMICS AND NEWS		
Delhi Oil Prevented From Entering El Paso Case	1-12	101
Firms Seek More Gas for Morgantown, W. Va., Area	1-19	87
Natural Gas Turns in Another Record-Breaking Performance—Dahl M. Duff	1-26	207
El Paso-Delhi Agreement Contingent Upon Line O.K.	2- 9	103
Rapid Expansion Continues in Natural-Gas Industry	2-23	119
Jersey Central to Use Gas, Oil as Its Principal Fuel	2-23	217
Alum Rock Seeks to Quit Service to United Natural	3- 2	96
Court Rules on Bowling Green, Panhandle Gas Case	3- 2	96
Independent Gas, Phillips Applications Consolidated	3- 2	96
Interim Rate Schedule of Michigan-Wisconsin O.K.'d	3- 2	96
FPC Consolidates Firms' Michigan Cities' Requests	3- 2	96
Colorado Interstate Gas Tariff Accepted by FPC	3- 9	115
Farris Forms New Gas Company in Texas	3- 9	115
East Tennessee Natural's Financing Plan Approved	3- 9	115
Peoples Gas Has Adequate Fuel for Line, FPC Told	3- 9	115
Gas Firms Urge Approval of Texas-Illinois Line	3-16	128
Kerr Natural Gas Bill Test	3-23	162
American Republics Corp. May Convert Texas Plant	3-23	353
Illinois Orders Inquiry Into Peoples Rate Charges	3-30	145
Panhandle Outlines Plans to Expand Gas Supply	3-30	145
One of Biggest Increases in Rates Sought by El Paso	3-30	145
Natural-Gas Supply From U. S. Sought by Canada Firm	4- 6	99
Investigation of Phillips' Natural-Gas Operations Seems First Real Legal Test of FPC Authority Under Old Law—Henry D. Ralph	4-20	133
Kerr Gas-Bill Veto—Bertram F. Linz	4-20	134
New England Hearing	4-20	281
El Paso Seeks Increase	4-20	281
Ohio Fuel Gas Co.'s New Rates Effective	4-20	281
Decision Appears Near on Joint Application of Independent Natural Gas Co., and Northern Natural Gas Co.	4-20	281
Eastern Natural Gas Sales Plans Discussed	4-20	281
Gas Curbs to End in Missouri Cities	4-27	212
Alum Rock Bid Approved	4-27	212
Gas Men's Quandary—Bertram F. Linz	5- 4	62
Natural Gas Only Segment of Industry Still Facing an Unsatisfied Demand—John C. Casper	5- 4	136
New Records Set	5- 4	177
Lone Star Gas Co. to Spend $81,000,000	5- 4	177
Rate-Increases Action	5- 4	177
Mississippi River Fuel Corp.'s Capacity Increase Sought	5- 4	177
Transco Offers Service	5-11	115
New Firm Being Formed	5-11	123
Southern California to Seek Lower Increases	5-11	123
Price Fixing Studied	5-11	123
Atlantic Seaboard Corp. and Virginia Gas Transmission Corp. Rate Increases Suspended	5-11	123
Gas Prices: Going Up—Henry D. Ralph	5-18	91
Rockland Light & Power Co. Wants Natural Gas	5-18	169
Little Big Inch Trouble	5-25	172
Trunkline Orders Pipe	6- 1	90

	Date	Page
T.G.T. Expanding—Dahl M. Duff	6- 1	99
Texas Gas' Income Up	6- 1	99
Virginia Proposal O.K.'d	6- 1	99
134 Billion Feet of Gas Yearly Involved in Texas Eastern Transmission Corp. Deal	6- 8	93
T.G.T. Offers New Service	6- 8	93
Phillips Gas Case	6-15	137
Gas for Carolinas	6-22	154
Rehearing Denied	6-22	339
Northern Natural Gas Co.'s Petition Dismissed by FPC	6-22	339
Gas for Chicago—C. O. Willson	6-29	39
Tariff Becomes Effective	6-29	111
T.G.T. Using Films	6-29	111
T.G.T. Seeks Horsepower Increase	6-29	111
Firm Proposes 2,175-Mile Gas Line From Texas Gulf Coast to Pacific Northwest—Leigh S. McCaslin, Jr.	7- 6	23
Gas for Indianapolis	7- 6	91
Cities Service Expansion	7- 6	91
Colorado Interstate and Canadian River to Expand	8- 3	89
Allocation Hearing Denied	8-10	111
Protest Company's Lower Gas Pressure	8-24	181
La. Compressor Station Contract Is Awarded	8-24	181
Gas for Georgia Towns	8-24	181
Texas-Arkansas Line Placed in Service	8-31	96
Ford "Dump" Gas Issue	8-31	105
Increase in Home Heating	8-31	105
Coal Men Lose Protest	8-31	105
Political Gas Districts in Mississippi	8-31	105
Shenandoah Project	8-31	105
Winter Gas Crisis Pends	9- 7	103
Space Heating Emergency in Michigan Area	9- 7	103
Majority Control of Sterling Oil & Gas Co. Involved in Exchange of Stock	9-14	147
Panhandle to Appeal	10-26	138
Decision Due on Whether Industry Will Have Gas-Control Agency	11- 2	38
Great Lakes Oil & Chemical Co. Enters San Juan Area	11- 2	114
Gulf Public Service Co., Inc., Accepts Identity	11- 2	114
Oklahoma Natural Gas to Spend $18,895,800 on Facilities	11- 9	188
FPC Solves Problem of New England Natural-Gas Supply by Splitting Market Between Northeastern and Algonquin Companies	11-16	194
United Gas Pipe Line Co. to Buy From Pure Wells Off Gulf Coast—Leigh S. McCaslin, Jr.	11-30	45
Gas Protested As a Fuel in Coal Areas	12-21	341

CARBON BLACK

New Carbon-Black Plants	4-20	281
Carbon-Black Production	6- 1	99
Carbon-Black Study	6- 8	31
Carbon-Black Report Issued	6-22	339
New Carbon Black Developed	7- 6	83
HAF-Type Plant Planned	7-20	59
Carbon-Black Plant Started in Texas	8-17	154
Continental Oil Black Co. to Build New Carbon-Black Plant	9-28	118
New Phillips Carbon-Black Plant	10- 5	285
New Carbon-Black Project at Sarnia, Ontario	11-30	104
Carbon-Black Outlook Good	12-28	91

CHEMICALS, FROM (also see Synthesis and REFINING)

Chlorination of Petroleum Hydrocarbons—G. W. Hearne	2-23	163
Utilization of Natural Gas for Conversion Into Nitrogenous Fertilizers—W. R. Pierce and C. W. Perry	5- 4	138
Acetylene Made From Gas	6-29	111

COMPRESSION (also see PIPE LINE)

Automatic Compressor Stations—T. S. Bacon	1-12	61
Gas Compressor Lubrication—F. M. McNall and E. H. Flaherty	2- 2	63
Planning Modern Gas-Compressor Stations: (Part 1) Foundations and Buildings—Tyler G. Hicks	2-16	92
Planning Modern Gas-Compressor Stations: (Part 2) Compressor Characteristics and Installation—Tyler G. Hicks	2-23	183
Construction Started at New Gas-Treating Plant	2-23	217
Planning Modern Gas-Compressor Stations: (Part 3) Compressor Cooling—Tyler G. Hicks	3- 2	73
Planning Modern Gas-Compressor Stations: (Part 4) Cooling Equipment, Air Filters, Exhaust Systems—Tyler G. Hicks	3- 9	86
Planning Modern Gas-Compressor Stations: (Part 5) Safety Devices and Station Heating—Tyler G. Hicks	3-16	95
Transco Will Use Steam-Turbine Centrifugal Compressors; May Have Unique Microwave Communication—Paul Reed	3-30	59
Steam-Turbine Centrifugal Compressors Stir Discussion	4- 6	43
Highlights in Modern Gas-Compressing Plant Design Trends—E. J. Hudson	4-20	160
Design of Gas-Compressor Stations and Dehydration Plants—C. B. Ames	5- 4	86
Improved Compressor Operated by Tennessee Gas Transmission at Louisiana Station—Roy F. Carlson	5-18	124
Floating Compressor Plants—J. D. Goodrich	6- 1	62
Centrifugal Compressors on the Texas Eastern Transmission Corp. System—E. A. Koenig	6-29	66
Compressor Station O.K.'d in Louisiana	7-27	353
Facilities Approved in Kansas	7-27	353
Texas Gas Progressing With Compressor Work	8-24	93
Added Gas Supply to Industry	8-31	105
Design and Construction of a Gas-Compressor Station—John F. Eichelmann	9-21	203
Practical Application of Large-Clearance Compressor Cylinders to Gas-Transmission Lines—O. H. Moore	9-21	219
Developments in Compressor-Station Design—Howard L. Cline	9-21	227

CONTROL

Measurement and Pressure Control of Natural Gas on the Transco System—E. N. Armstrong	5- 4	122
Automatic Lubricators in Flow-Meter Service—Roy F. Carlson	5-11	100

CYCLING (see this heading under PRODUCTION)

DEHYDRATION

Automatic Package Units for Dehydration—A. W. Francis, Jr., and J. L. Maher	1- 5	70
New Desiccant Developed at Socony-Vacuum	4- 6	43
Dehydration of Natural Gas—R. C. Buchan, R. J. Sullivan, Milton Williams, and H. H. Spain	4- 6	74
Design of Gas-Compressor Stations and Dehydration Plants—C. B. Ames	5- 4	86
Installation, Operation, and Performance of a Skid-Mounted Gas-Dehydration Plant—L. Harman Peahl	7-13	92
Gas Dehydration Plant Contract Let	8-17	153

DRILLING ACTIVITY (see DRILLING)

ENGINEERING, GENERAL

Flow of Gas in Pipe Lines—Henry C. Owen, Jr.	3- 9	71
North Cowden, One of Nation's Largest Gas-Injection Projects, Now in Operation—N. H. Rahmes	7-20	74
Alcoa's New Plant Uses Natural-Gas Power Source—Leigh S. McCaslin, Jr.	8- 3	58
Design and Construction of a Gas-Compressor Station—John F. Eichelmann	9-21	203
Developments in Compressor-Station Design—Howard L. Cline	9-21	227

FISCHER-TROPSCH PROCESS (see Synthesis, REFINING)

LIQUEFIED PETROLEUM GASES (see NATURAL GASOLINE)

MEASUREMENT

New Displacement Method of Measuring Gas Flow Through Pipe Lines—J. C. Wright	3-16	99
Gas Deviation Methods—Kenneth B. Barnes	4-13	69
A.S.T.M. Sampling, Measurement Methods Are Announced	4-13	124
O. U. Short Gas Measurement Course Draws Record Group of Oil Men—John C. Reidel	4-20	143
Measurement and Pressure Control of Natural Gas on the Transco System—E. N. Armstrong	5- 4	122
Automatic Lubricators in Flow-Meter Service—Roy F. Carlson	5-11	100

PIPE LINE (also see PIPE LINE)

Line-Pressure Increase Is Granted Michigan-Wisconsin	1- 5	96
Northern Natural Receives Approval for Expansion	1-26	372
Flow of Gas in Pipe Lines	3- 9	71
FPC Approved 2,637 Miles of Gas Line	3-16	128
Texas Eastern to Supply Natural Gas to Algonquin	3-23	353
Tennessee Expansion to Get Under Way This Month	4- 6	99
Gas Line Proposed by Georgia Natural Gas Co.	4-20	281
New United Fuel Gas Line Authorized	4-27	212
Symonds Outlines Economic Benefits of New Pipe-Line Technique	5- 4	56
The Story of Transcontinental—Claude A. Williams	5- 4	81
...and the Story of the Builders—Ray C. Fish	5- 4	84
Pipe-Laying Methods on Transcontinental—Walter H. Davidson	5- 4	90
Double Jointing for Transcontinental Project—J. W. Hall	5- 4	94
Valving Design on Transcontinental System—R. D. Ricketts	5- 4	98
River Crossings on the Transcontinental System—Frank H. Chilson	5- 4	105
Eastern Section Construction Transcontinental Gas Pipe-Line Project—J. B. Harshman	5- 4	112
Canadian Pipe-Line Policy—Charles J. Deegan	5-18	99
Jersey Central Power & Light Co., Bid for Line Dismissed	5-25	183
Gas-Pipe-Line Study at P.C.G.A. Annual Conference—D. H. Stormont	6- 1	39
Michigan Natural-Gas Line Proposed	6-22	339
Mississippi Cities Seeking Gas	6-22	339
Gas for Chicago—C. O. Willson	6-29	39

	Date	Page
Firm Proposes 2,175-Mile Gas Line From Texas Gulf Coast to Pacific Northwest—Leigh S. McCaslin	7- 6	23
Gas Line Crosses Hudson	7-13	49
Atlantic Gulf Case Reopened	7-27	353
Massachusetts Agency Proposed to Operate Pipe Lines	8-10	45
United Plans Expansion	8-10	111
Georgia Line Sought	8-17	153
PRODUCTION		
40 Wells Added to Monroe Gas Field	1- 5	33
PROPERTIES		
Water-Vapor Content of Essentially Nitrogen-Free Natural Gas Saturated at Various Conditions of Temperature and Pressure—Eugene L. McCarthy, W. L. Boyd, and L. S. Reid	1- 5	59
REGULATION OF PRESSURE (see Conirol)		
RESERVES (see PRODUCTION)		
SAFETY		
Safety Record Set by Phillips	7-20	117
SALES OF PROPERTIES		
Delhi Sells Holdings	1-26	164
Allegany Gas Proposes to Acquire New Facilities	1-26	372
Fin-Ker Gas Company Sold	2- 2	32
Colorado Interstate Plans Merger With Amarillo Firm	2-23	217
Gas Companies Consolidate in Oil City, Pa.	7-13	123
Natural Gas Co. of West Virginia Sale Is Proposed	8-17	153
Greenfield Gas Co. to Acquire Indiana Lines	11-23	103
Lone Star Producing Co. Buys Gas Properties	12-14	62
Monogahela Power Co. Property Sale Approved	12-14	127
STATISTICS, NATURAL GAS		
Nearly 4 Trillion Cubic Feet of Gas Sold in 1948	1-12	101
Gas Revenue Up	5- 4	177
Sales Up in March	5-25	183
Gas Revenues and Income Gain in April	6-29	111
Natural Gas Appears Headed for Continued High-Level Expansion—Dahl M. Duff	7-27	188
Natural Gas Revenues, Taxes Climb	8-17	153
Rate Increases Granted Atlantic Seaboard Corp.	8-24	181
Gas Revenues, Sales Gain	9-14	147
California Still Short on Natural Gas	11- 9	A-63
Gas Transmission to the East Increased 34 Per Cent During 1949—John C. Casper	11-23	103
Vast Market Awaits Development of Venezuela's Natural Gas—Robert M. Poe	12-21	228
STORAGE		
Granular Adsorbent Latest Gas-Storage Development	3-30	59
New York State Natural Gas Corp., Expansion Authorized	4-13	124
Two Firms Propose Underground Facilities	5-25	183
Storage and Supplemental Gas Sources Studied by A.G.A.—George Weber	6- 1	34
Underground Storage O.K.'d	6- 1	97
Ohio Gas Co. Storage Facilities O.K.'d	7-13	123
Underground Storage and Migration of Natural Gas—F. E. Vandaveer and J. J. Schmidt	7-27	270
Michigan-Wisconsin Plan	7-27	344
Texas Eastern Plan Draws Opposition	7-27	353
FPC Expedites Gas Storage Hearings	8-24	181
Underground Storage O.K.'d	9-14	147
Accounts System Revised	9-21	379
Gas Storage Increased	10-12	137
Storage Areas Sought in Kankakee County, Illinois	12-14	127
TREATING (also see REFINING)		
Operating Problems Related to Gas Treating—J. S. Connors and A. J. Miller	2- 2	57
Gas-Treating Process—A. L. Kohl	11-30	63

Natural Gasoline

	Date	Page
CYCLING (see PRODUCTION)		
LIQUEFIED PETROLEUM GASES (also see REFINING, NATURAL GAS		
Sales of Liquefied Petroleum Gas Increased Last Year—E. O. Mattocks and K. W. Rugh	1- 5	28
New Firm Formed—Buys L.P.G. Storage Facilities	3-16	128
Liquefied Petroleum Gas as a Competitive Fuel—W. V. Vietti	4-20	152
Underground Storage Would Solve L.P.G. Difficulties—C. R. Williams	4-20	153
New Problems Have Accompanied L.P.G. Expansion—W. A. Baden	4-20	154
Experimentation Conducted on Underground Storage of L.P.G.—H. W. Manley	4-20	156
New, Safe, Practical Storage and Transportation Method for Light Hydrocarbons—C. V. Spangler, W. W. Bodle, and W. T. Granquist	4-20	170
Plant Production of L.P.G. Soars Above That of Natural Gasoline—John C. Casper	4-20	185
Gas-Liquids Forum at N.G.A.A.—Roy F. Carlson	5- 4	60
L.P.G. Firms Sued	5-11	123
L.P.G. as Motor Fuel	5-25	183
Buses Use Propane	6- 1	99
New L.P.G. Use	6- 8	37
Underground Storage of L.P. Gases—Charles B. Johnson, Jr.	6- 8	50
Wichita's Trial of Propane-Powered Buses Points Up Trend—Kenneth B. Barnes	8-10	41
Man-Made Propane Reservoir	8-17	59
Italian Propane Order Spots Growth of Industry	8-17	71
New Uses for L.P.G.—Kenneth B. Barnes	9-14	69
Warren Petroleum Constructing New L.P.G. Barge	9-21	379
Propane Contract Awarded to Phillips Petroleum Co.	9-21	379
August 1950 L.P.G. Demands Up	11- 9	188
"Packaged" Gasoline Plant Is Completely Portable—L. S. Gregory	11-30	60
Tractor Use of L.P.G. Up	12-14	66
Fleet Conversion Planned	12-21	341
Milwaukee Cabs Converted to L.P.G.	12-21	341
PLANT PRACTICES (for complete list see REFINING)		
Profit in Hydrogen Sulfide Conversion—J. H. Forrester	4-20	155
Application of Refrigeration Results in Obtaining Higher Yields	4-20	166
Loading Racks Designed for Utmost in Safety and Utility	4-20	234
Selection, Operations, and Maintenance of Cooling Equipment—M. A. Ellsworth	4-20	243
Safety, Convenience Built Into California Booster Station	6-29	69
Instrumentation of Process Equipment and Tankage Prevents Spills and Overfilling	8-31	66
Tower Corrosion Arrested With Boiler Blow-Down Water	8-31	84
PLANTS, CONSTRUCTION (also see Pressure Maintenance under PRODUCTION)		
Two Gasoline Plants Slated for Scurry County, Texas	2-16	133
Shell Announces Plans for Elk City Gasoline Plant	3-23	353
Tennessee Gas to Build Gasoline Plant in Kentucky	3-30	145
Superior Plans to Build Plant on Texas Gulf Coast	3-30	145
Economy Principal Factor in Design of Present-Day Processing Plant—Meinhard H. Kotzebue	4-20	158
Scurry Plant Started	4-27	66
Pecos Plant Expansion	4-27	212
Shell Completes New Plant	6-15	137
T.G.T. Plant Under Way	7-20	117
To Enlarge Plant	8-10	111
Magnolia Petroleum Co. Pump Station Enlarged	8-17	153
Superior Plant Site	8-17	153
Plant to Be Expanded at McAllen	10-26	138
Sunray Plant Under Way at Snyder	11- 9	188
Stanolind Plant to Expand	12-28	91
PLANTS, GENERAL		
Shell May Build Gasoline Plant in Elk City Field	1-12	101
Standard of Texas Wants to Dismantle Gas Plant	3-16	128
Union Operating Plant	3-30	145
Rincon Gasoline Plant Expansion Is Completed	4- 6	99
Field Processing Plants Recently Completed	4-20	169
New Sun Plant Serves Five Southwest Texas Oil Fields—Roy F. Carlson	4-20	174
La Gloria Plant Gets Three Major Additions in 9 Years—Homer C. Givens	4-20	180
Stanolind Starts Operation of Three New Plants	4-20	189
Chalk Hill Plant Illustrates Manufacture-Repressure Design—J. D. Glidden	4-20	240
Gasoline Plant Operating	4-20	281
Gasoline Plant to Handle 600,000,000 Cu. Ft. of Natural Gas Daily—Leigh S. McCaslin, Jr.	4-27	78
Levelland Facilities Now in Full Operation	5- 4	177
Seeligson Field Pressure-Maintenance and Hydrocarbon-Recovery Plant—D. T. McDonald	5-11	78
Levelland Gasoline Plant—J. E. McCollum, J. M. Cook, and E. W. Kilgren	5-18	119
South Fullerton Gasoline Plant Good Example of Conservation and Producer Cooperation—J. M. Hillsman and E. W. Kilgren	6-15	112
New Mamou Field Process Plant Has Facilities for 7,000 M.c.f.—Brunner C. Barnes	6-22	189
Plant Dedicated—North Cowden Facilities Now in Full Operation	7- 6	91

	Date	Page
Construction Due Soon on North Snyder Natural Gasoline Plant	9- 7	45
"Packaged" Gasoline Plant—R. B. Tuttle	9- 7	78
Plymouth's Operations at Benedum—Roy F. Carlson	11-23	66
Gasoline Plant Features Combination Cooling Tower and Air-Cooled Condenser Installation	11-23	71
"Packaged" Gasoline Plant Is Completely Portable—L. S. Gregory	11-30	60
PLANTS, LIST OF		
California Nation's Second-Ranking State in Natural-Gasoline-Plant Capacity	11- 9	A-59
PROCESSING		
Joint Gas-Gathering System and Compressor Plant for Cymric Field—F. H. Lacy, Jr., and Warren H. Kraft	1-19	66
Processing Methods in a Gasoline Plant to Obtain 85 Per Cent Propane Recovery—C. P. Stanley	4-20	157
Rich-Oil Rectification Employed to Achieve Flexibility and Efficiency—Edward C. Ragatz	4-20	159
Hypersorption Provides Selective Separation of High-Purity Streams	4-20	163
Improved Propane Extraction From Rich-Oil Stabilization—Norman K. Rector	4-20	169
Platforming of Natural Gasoline—E. K. Sutherland and D. D. Hanson	4-20	177
Hydrogen Sulfide Study	5-25	183
Butane-Blending Data	8-10	111
Sholem Alechem Gasoline Plant Processing 30 Million Cubic Feet Per Day—Roy F. Carlson	9- 7	60
Royalty Formula Announced for Federal Lands in California	11-23	103
Natural-Gas Processing—V. E. Middlebrook	12- 7	85
SALES OF PROPERTIES		
Sinclair Buys Interest	5-11	123
Lodi Gas Plant Sold	6- 1	99
Oklahoma Natural Gas Buys Plant Interest	9-14	147
STATISTICS, NATURAL GASOLINE		
Light-Hydrocarbon Production Sets Another All-Time Record—John C. Casper	1-26	202
Production of Natural Gasoline and Cycle Products by States by Years (1941-1949)	1-26	203
Tabulation of U. S. Natural Gas Processing Plant-Building Projects—R. B. Tuttle	1-26	218
Three Factors in Today's Natural Gasoline Operations—J. A. LaFortune	4-20	152
Plant Production of L.P.G. Soars Above That of Natural Gasoline—John C. Casper	4-20	185
Projects Now Considered Will Increase Input Gas Capacity 100,000,000 Cu. Ft.—R. B. Tuttle	4-20	205
Survey of Natural-Gasoline Plants	4-20	223
Survey of Cycling Plants	4-20	233
Production Is Up	7- 6	91
Construction Report on Natural-Gasoline and Petrochem Plants—R. B. Tuttle	7-27	201
California Nation's Second-Ranking State in Natural-Gasoline-Plant Capacity	11- 9	A-59
Huge Growth in L-P Gases	11-16	207
September Natural Gasoline Production Sets Record	11-30	102

Exploration

	Date	Page
EXPLORATION, ACTIVITY (also see Drilling Activity under DRILLING)		
Exploration Drilling Reaches New All-Time High Records—Polly DeArmond	1-26	180
Postwar Exploration for Petroleum in Japan—Godfrey F. Kaufman (Abs.)	4-27	123
More Reef Production Found in Kent	6-15	153
Current Tempo of Exploratory Drilling Indicates 1950 Will Chalk Up Another Record—Pollyanna DeArmond	6-29	37
Oil in Western Canada—Dr. Oliver B. Hopkins	8- 3	54
Texas Gulf Coast Discovery May Open Trend	9-21	176
Terry County Is Not Another "Scurry"	9-21	389
Northwestern Oklahoma Activity	9-28	125
Much Geological and Drilling Work Remains in Search for Oil in Pakistan—Dr. H. Crookshank	10-12	108
Superior Subsidiary in Canada Changes Name; Offers Stock to Step Up Exploration, Drilling Campaign	10-19	68
New Oil Provinces—D. H. Stormont	10-26	62
California Exploratory Drilling Marked by a Succession of High Points	11- 9	A-41
Progress Report: Midland County	11-23	117
Let's Drill Some Wildcats	12-14	97
Wildcats Attack Beckham Area Puzzle	12-14	137
EXPLORATION, AREAS		
Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	256
Exploratory and Development Drilling—Where It Occurred and the Results	1-26	319
Niagaran Reefs in Illinois and Their Relation to Oil Accumulation—H. A. Lowenstam	3- 2	48
Wildcat Finds Canyon Reef in Middle of Kent County	3-16	52
Pegasus and Meadow Fields, Midland and Upton Counties, West Texas—Frederick Shepherd and Malcolm E. Wilson, Jr.	4-27	140
The Search for Oil and Gas in the Rocky Mountain Region—Dorsey Hager	5-18	116
Oil Exploration in Florida During 1949—Herman Gunter	6-22	310
Alberta Oil Fields—Philip C. Ingalls	7-13	68
Oil in Western Canada—Dr. Oliver B. Hopkins	8- 3	54
Tristate's Production Dominated by Few	8-17	161
Cuyama Discovery—D. H. Stormont	8-31	43
Two Areas Claim Special Attention	8-31	111
Julesburg Basin Trend 90 Mile Long	9- 7	123
California Exploratory Drilling Marked by a Succession of High Points	11- 9	A-41
Basins of the Southwest	12- 7	133
Here's How Socony-Vacuum Conducts Transport in Venezuelan Operations—George F. Kendall	12-14	76
EXPLORATION, RESULTS		
Two Per Cent of Fields Account for 60 Per Cent of Oil Found—Charles J. Deegan	1-26	184
Rich Pool Found in "Condemned" Area	8-10	119
Canada's Viking Sand Gets Recognition	8-24	203
Navy Brings in Oil Well	10-19	67
GENERAL		
1950 Problems of Exploration Scientists	1-12	105
Exploration Societies' Convention	3-23	373
Why Independents Find Some Fields	4-20	283
Nearly 4,000 Exploration Scientists Gather to Compare Notes—Charles J. Deegan	4-27	106
Red Beds and the Search for Oil—Gordon Rittenhouse (Abs.)	4-27	123
Geosynclinal Deposits in Central Gulf Region of United States—Grover E. Murray (Abs.)	4-27	123
Some Quantitative Aspects of Lake Mead Turbidity Currents—Howard R. Gould (Abs.)	4-27	176
Exploration Men Are Optimistic	5- 4	183
Golden Trend Deese Pools Spreading	7-27	363
Sholem Alechem Is Active Again—Philip C. Ingalls	8-10	77
Wyoming Operator Gets a Break	9-14	155
More Imaginative Thinking in Specifications Required for Wildcat Prospects Advocated at Fort Worth Meeting—Philip C. Ingalls	12- 7	58
Origin of Oil May Be Found in Phase Relations of Hydrocarbons	12- 7	62
GEOLOGY		
Reefs Can Do Peculiar Things	2- 9	115
Approach to the Origin of Oil—Walter K. Link	3-16	88
Freedom and Petroleum Geology—C. W. Tomlinson	4-27	109
Paleogeographic Distribution and Classification of Reefs—L. L. Sloss, E. C. Dapples, and W. C. Krumbein (A.A.P.G. Abs.)	4-27	118
Some Physical Aspects of Ancient Reef Complexes—Robert R. Shrock (A.A.P.G. Abs.)	4-27	118
Reed Sedimentation—Majuro Atoll—Sherman A. Wengerd (A.A.P.G. Abs.)	4-27	118
Significant Gravity Pattern in Reef Anomalies—Richard A. Pohly (A.A.P.G. Abs.)	4-27	119
Lithologic Facies of Jacksonian Stage, Central and Eastern Gulf Coast—Grover E. Murray (Abs.)	4-27	123
Application of International Business Machines to Geological Data—Margaret A. Parker (Abs.)	4-27	172
Faunal Evidence for Mass Movement of Submarine Sediments—Fred B. Phleger (Abs.)	4-27	177
Mass Movement of Sand Into Deep Water—Francis P. Shepard (Abs.)	4-27	177
Mesozoic Plant Microfossils and Their Geological Significance—Theodor Just (Abs.)	4-27	178
Plant Microfossils and Paleozoic Stratigraphy—James M. Schopp (Abs.)	4-27	178
Paleobotanical Criteria Applicable to Certain Devonian-Mississippian Black Shales—Aureal T. Cross (Abs.)	4-27	178
Age and Environment: A Survey of North American Tertiary Floras in Relation to Paleoecology—E. S. Barghoorn (Abs.)	4-27	178
Occurrence and Lithologic Associations of Evaporites in United States—W. S. Krumbein (Abs.)	4-27	179
Electric Correlation Drilling in the Rocky Mountains—N. C. Surber and E. R. Sims, Jr.	9- 7	86
Composite Electric Logs for Central and North-Central Oklahoma—Philip C. Ingalls	9-14	128

Much Geological and Drilling Work Remains in Search for O.I in Pakistan—Dr. H. Crookshank 10-12 108
Wyoming Correlations—Penetration Chart for Rock Springs Uplift and Green River Basin Fields 10-19 93
Wyoming Correlations—Penetration Chart for Rawlins Uplift, Great Divide, and Washakie Basins 10-26 105
Wyoming Correlations—Penetration Chart for Powder River Basin 11- 9 178
Wyoming Correlations—Penetration Chart for Julesburg, Hanna, and Laramie Basin 11-23 76
Wyoming Correlations—Penetration Chart for Wind River Basin Fields 11-30 81
Practical Application of Micrologging in the Northeastern United States—C. A. Doh 12-14 80
Geology of Delaware Basin—Berte R. Haigh (A.A.P.G. Abs.) 12-14 102
Geology of Anadarko Basin—R. V. Ward (A.A.P.G. Abs.) 12-14 102
Geology of Marfa Basin—Ronald K. DeFord (A.A.P.G. Abs.) 12-14 102
Paleogeology of Plainview Basin—Robert Roth (A.A.P.G. Abs.) 12-14 102
Geology of Northwestern Shelf Area—W. A. Waldschmidt (A.A.P.G. Abs.) 12-14 103

GEOPHYSICS

Cheap, Fast Electric Logs—Charles J. Deegan 2- 9 76
Offshore Seismograph Work With a Single Boat—Charles J. Deegan 4-13 82
Geophysical Activity in 1949—E. A. Eckhardt 4-27 104
The State of Seismic Prospecting—Andrew Gilmour 4-27 110
Seismic Work Problems in the Canadian Bush Country—W. J. Tellington 4-27 114
The Advantage of Airborne Over Ground Magnetics for Purposes of Interpretation—H. Wayne Hoylman (S.E.G. Abs.) 4-27 120
Air-Blast Symposium—W. T. Born (S.E.G. Abs.) ... 4-27 120
Geophysical Data on the North Carolina Coastal Plain—D. C. Skeels (S.E.G. Abs.) 4-27 120
Reflected Energy Variations Resulting From Small Changes in Shot Hole and Spread Locations—Carl H. Savit (S.E.G. Abs.) 4-27 120
Microwave Shoran—Frank C. Alexander, Jr. (A.A.P.G. Abs.) 4-27 120
Dispersion in Seismic Surface Waves—Milton B. Dobrin (S.E.G. Abs.) 4-27 120
The Second Derivative Method of Gravity Interpretation—Thomas A. Elkins (S.E.G. Abs.) 4-27 123
Density Determination by Underground Gravity Measurements—Sigmund Hammer (S.E.G. Abs.) ... 4-27 123
The Case for Gravity Data From Boreholes—Neal J. Smith (S.E.G. Abs.) 4-27 123
Some Theoretical Aspects of Density Currents—Henry W. Menard and J. C. Ludwick (Abs.) 4-27 172
Canadian Bush Country and Its Demands on Geophysical Equipment—Charles J. Deegan 6-15 90
New Method for Measuring Seismic Velocities—Neal J. Smith and A. P. Claudet 9-14 92
Humble Research Lab Now in Operation 9-21 177
Composite Electrical-Radioactivity Log—Central Basin Platform in Permian Basin—Philip C. Ingalls 10-19 122
New Method of Dip Logging 10-19 151
Sand Bar Located by Seismograph 10-26 141
Salt-Dome Faults 11-30 46
Review of Seismic and Gravity Exploration of Delaware Basin—W. A. McFadden, Jr. (A.A.P.G. Abs.) 12-14 102
Evaluation of Magnetics in Delaware Basin—H. Wayne Hoylman (A.A.P.G. Abs.) 12-14 102
Geophysics of Anadarko Basin—Paul L. Lyons (A.A.P.G. Abs.) 12-14 102
Geophysical Evaluation of Marfa Basin—J. H. Wilson (A.A.P.G. Abs.) 12-14 102
Geophysics of Plainview Basin—W. P. Harvey (A.A.P.G. Abs.) 12-14 103
Local "Oil Finders" Societies 12-21 351
Wind River Exploration by Cities Service Oil Co. (picture) 12-28 35

RESERVES (see PRODUCTION)

General News, Shaping Industry Policy and Operations

Economics

	Date	Page
ARMED SERVICE PETROLEUM BOARD		
Bids to Be Received by Armed Services for Fuels ..	4- 6	112
COMPANIES (Corporate Reports and Finances)		
Ohio Standard Looks Back Over History	1-12	39
Company Earnings Shrink But Dividend Rates Climb	1-19	30
Company Budgets Indicate Heavy Spending in 1950—Henry D. Ralph	1-26	157
Sunray-Barnsdall Deal—Henry Ralph	2- 9	45
Barnsdall Oil Has Retired 518,407 Shares of Stock Since 1948	3- 9	53
Cities Service Change	4-27	78
Texmass Given Extra Month to Meet FPC Requirements—Bertram F. Linz	5- 4	68
Study of 32 Companies Shows Operations and Earnings in 1949 Exceeded Only by 1948; Reserves at an All-Time High	5-11	60
New Company Formed Called Texas Eastern Production Corp.	5-18	95
Companies Report Big Gains in Gas Sales	5-18	169
Texmass Reorganized	6- 1	32
Shell's Recovery—Dahl M. Duff	6-15	81
Lone Star Gets Loan	6-15	137
Stockholders of Sunray Oil Corp., Barnsdall Oil Co. Approve Consolidation	6-22	156
The California Co. Since 1941—Lucius M. Lamar	6-22	274
Derby Planning Expansion	6-29	108
Husky Refining, Oil Merged	7- 6	84
Husky Gets New Name	7-20	58
U.O.P. Forms Subsidiary	7-20	58
McCarthy Charters Firm	7-20	59
Trunkline Changes Name	7-20	119
New A.I. Members Named	7-20	125
New Company Formed by Shell and Standard (Ohio) Called Essaness Corp.	8- 3	84
Superior Oil May Separate Oil, Natural-Gas Business	8-10	44
Pipeline Contracting Firm Formed	8-17	147
Westoil Terminal Co. New West Coast Company	8-31	108
Five Gas Lines Grouped to Be Called United Natural Gas Co.	9- 7	103
Crude, Products Flow Increase for June 1950	10- 5	272
Oil Industry Spends 2 Billion Dollars in 1950 for Expansion and New Equipment	11- 2	29
Construction of Headquarters Building Establish Service Pipe Line Co. as Entity Apart From Parent	11- 2	31
	Date	Page
Kuwait Crude Contract	12- 7	68
Oil-Company Earnings Up Over 1949	12-14	60
Refineries Prosper	12-14	130
COOPERATIVES		
Better Earnings for Petroleum Cooperatives Enables Them to Recover After "Toughest Competitive Battle in Years"—Bertram F. Linz	11-30	47
DRILLING ACTIVITY (see DRILLING)		
EDITORIALS		
A Seasoned Compact	1- 5	21
End the Excise Taxes	1-12	27
Effective Cooperation	1-19	27
A Transition Year	1-26	155
Percentage Depletion	2- 2	19
International Policy	2- 9	44
Natural-Gasoline Threat	2-16	65
Evolution in Proration	2-23	109
H.R. 6000	2-23	20
A Crucial Month	3- 9	47
Court of Last Resort	3-16	46
Normalcy in Refining	3-23	153
Confusing Issues	3-30	52
First Quarter	4- 6	39
A Propaganda Bureau	4-13	55
The Conservation Division	4-20	131
An Accomplished Objective	4-27	61
Public-Relations Job	5- 4	53
Threefold Responsibility	5- 4	43
Chaos Wanted	5-18	89
The Yardstick Supplied	5-25	79
"Why Be Confused?"	6- 1	27
A Summer Job	6- 8	27
Fight Just Started	6-15	63
Calling a Spade—	6-22	145
Octane Race	6-29	35
What About Oil?	7- 6	19
Preparedness	7-13	43
Pricing Policy	7-20	47
Taking Stock	7-27	153
Walk, Don't Run	8- 3	19

	Date	Page
Oil Is Ready	8-10	35
Octane Conservation	8-17	53
Paramount Right	8-24	87
Pioneer Spirit	8-31	35
Behind the Lines	9- 7	39
Watch Propane	9-14	61
Lines of Progress	9-21	168
Pattern for Action	9-28	45
Drilling Costs	10- 5	115
Good Job	10-12	53
Oil Progress Week	10-19	55
Under the Bed	10-26	53
Petrochemical Chain	11- 2	27
California Oil	11- 9	47
The Changing A.P.I.	11-16	179
Timely Inspiration	11-23	37
Flexibility Test	11-30	35
Finding Reserves	12- 7	51
Oil and Peace	12-21	137
Frozen Prices	12-28	29
EDUCATIONAL		
Chicago Oil Exhibit Formally Opened	3-23	161
Pollution Study Planned	5-11	51
Socony Renews Fellowship	7- 6	84
New Course Offered	8-10	117
Permian Oil Show at Odessa	10- 5	127
1950 Oil Progress Week Under Way	10-19	63
Hawkins Defense of Oil Highlights Permian Basin Show—Roy F. Carlson	10-26	62
Professors Meet Refiners	11- 2	112
Petroleum One of Most Important Factors in Determining Whether Free People Will Survive, Porter Tells A.P.I.	11-16	182
A. & I. Gets Accreditation	11-16	191
Petroleum Is Progress—Its Industry Is Dynamic	11-16	200
1950 Oil Progress Week Provides Occasion for Series of Public Appearances by Oil Men—Here Is Reported Some of What They Said	11-16	210
Oil, Gas, and the Banker—F. F. Florence	11-16	348
O.I.I.C. Public Relations Program Praised; Larger Campaign Planned	11-23	44
Houston Teachers Told How Oil, Gas Business Operates—Leigh S. McCaslin, Jr.	11-23	50
Sunray Engineers Go to Electric Logging and Log Interpretation School	12-21	148
EXPORTS		
Export Controls Tightened; Materials Diversion Seen	7-13	53
Imports Up, Exports Down for First Half of 1950—Henry D. Ralph	7-27	192
Export Controls Stiffened	8- 3	22
Exports Rules Tightened	8-31	39
August 1950 Crude Imports Increase; Exports Drop	10-19	63
First Shipments of Steel Pipe for I.P.C. Project in Middle East Bring Sharp Protests by I.P.A.A., Others	11- 9	73
September Imports Figure Shows Drop From August; Exports Up	11-16	191
Senator Wants Thorough Study of Export Control Program	12- 7	53
FEDERAL POWER COMMISSION (also see this heading under PIPE LINE)		
Order Issued in Virginia Gas-Service Proposals	1- 5	96
Motion to Dismiss Piedmont Proposal Denied by FPC	1- 5	96
FPC Power Upheld	1-12	33
FPC Denies Motion in New York Gas-Service Proposal	1-12	101
New York Gas Firms File New Motions Before FPC	1-19	93
FPC's Investigation of Panhandle Deal Dismissed	1-26	372
New Gas Bill	2- 9	51
Gas-Company Controls	2-16	71
Phillips Hearing FPC	2-16	78
Alabama-Tennessee Tariff Proposal Rejected by FPC	2-23	217
Investigation of Phillips' Natural-Gas Operations Seems First Real Legal Test of FPC Authority Under Old Law—Henry Ralph	4-20	133
No One Knows How Far FPC May Go in Trying to Control Independent Producers and Fixing Field Prices of Gas—Henry D. Ralph	5-25	83
Senate Confirms Smith for FPC	6-29	45
The New FPC—Bertram F. Linz	7- 6	26
FPC Kills Order 139 Exempting Independents	7-20	50
FPC Sets August 14 as Date to Hear Various Panhandle Questions	7-20	117
Phillips Motion Dismissed	8- 3	89
FPC Thumbs Down on Construction Proposals for New England Gas Lines	10-12	57
FOREIGN, GENERAL (also see Anglo-American under FOREIGN)		
Britain Seeks to Prevent American Firms Supplying Japanese Refineries—Bertram F. Linz	1- 5	24
Non-British Oil Companies Alarmed Over Effects of Imports Ban—Dahl M. Duff	1- 5	36
British Imports Ban Difficulties—Dahl M. Duff	1-12	45
Yugoslavia Another Lost Market—Dahl M. Duff	1-19	37
World Production Figures—Dahl M. Duff	1-26	168
Foreign Production Gains, But World Total Down in 1949—Dahl M. Duff	1-26	205
Britain's Bad Guess on Oil-Imports Ban	2- 2	26
Foreign Concession Contracts—Dahl M. Duff	2- 9	56
World Production in December	2-23	120
ECA Concerned Over Excess Refining Capacity in Europe	3- 9	58
ECA Not to Help Overbuild European Refining Capacity	3- 9	58
U. S. Planning Strong Move Against British Oil Ban	3-16	49
Marshall-Plan Needs—Bertram F. Linz	3-16	59
New Approach Planned in Dollar-Sterling Dispute	3-23	162
Struggle Between Sterling Oil and Dollar Oil Now a Major Factor—Dahl M. Duff	3-23	165
World Production in January—Dahl M. Duff	3-23	166
February Foreign Production—Dahl M. Duff	4-27	83
No Drilling Pickup in Foreign Areas	4-27	84
Record Production Outside U. S.—Dahl M. Duff	5-25	98
Sterling Accord Emerging—Dahl M. Duff	6-15	82
Britain Sends Answer on Dollar-Sterling Controversy	6-15	84
World Production in April—Dahl M. Duff	6-22	159
Britain's Latest Note Avoids Formal Agreement on Sterling-Oil Problem	6-22	160
Mexican Oil Treaty Abrogated—Bertram F. Linz	6-29	44
World Congress Plans	6-29	53
Combination of Several Factors Accounts for Present Rate of Foreign Production 10 Per Cent Above Last Year's Level—Dahl M. Duff	7- 6	30
World Production Reaches Another All-Time High in Spite of Drop in Venezuela—Dahl M. Duff	7-27	163
U. S. Production Gain of 126,000 Bbl. Daily Enables World Output to Set New Record in July—Dahl M. Duff	9-28	58
World Production Sets 4th Consecutive Monthly Record for August 1950—Dahl M. Duff	10-19	70
Census Ordered on U. S.-Held Foreign-Owned Property	10-19	72
What's the Present Picture on Oil in the Far East?—W. E. V. Abraham	11-16	226
World Crude Production Exceeded 11,000,000 Bbl. Daily in September—Dahl M. Duff	11-23	52
Competing with Persian Gulf Oil on World and Domestic Markets or in Battle Is Challenge Facing Texas Oil Men, Thompson Says—Roy F. Carlson	12- 7	59
Western Europe—Marked by Refining Expansion	12-21	164
World Production Up—Dahl M. Duff	12-28	45
GOVERNMENTAL, GENERAL		
Truman's Economic Council Advocates Fewer Government Curbs on Business	1- 5	25
Oil Taxes, Leases to Provide $658,000,000; Truman Tells Congress—Bertram F. Linz	1-12	29
Congressional Investigations of Oil Reserves and Practices by Britain to Be Asked	1-12	30
Exclusive-Dealer Contracts Are Alleged in Suit Against Sun—Bertram F. Linz	1-19	32
Chapman Approved for Interior Department	1-19	34
Harris Bill for Creation of Oil Policy Council Opposed—Bertram F. Linz	2- 2	21
Sun Tells Court Charges of Government Unfounded	2- 9	46
ITO Delay	2- 9	52
Bill Giving Tidelands Title to States to Find Strong Opposition	2-16	75
Congress Looks at Oil Imports—Bertram F. Linz	2-23	112
Military Motor Gasoline Demands	2-23	113
FTC Subpenas Records of Three Companies Probe of Operations Abroad	2-23	114
Administration's Plan for 10-Year Control of Synthetics Facilities Gets Icy Reception	3- 2	30
Navy Lets Contracts for Crude, Petroleum Products	3- 9	121
Basing Point Bill May Be Heading Toward Enactment	3- 9	122
British Oil Would Be Barred From U. S. by Monroney Bill	3-16	49
Cut in States' Take of Tideland's Oil Revenues May Speed Bill	3-16	53
House Group Asks End of OGD	3-23	163
Louisiana Files Tidelands Brief	3-23	164
Tideland Arguments Heard	3-30	64
Kerr Gas Bill Passed—Bertram F. Linz	4- 6	47
Penn Grade Protest of ECA Financing of European Refineries	4-13	63
Thorp Outlines State Department's Oil Beliefs Before Congress	4-13	63
Congressman Asks for Railroad-Type Controls on Gas Pipe Lines	4-13	65
Navy to Sell Elk Hills Oil	4-13	65
Kerr Gas-Bill Veto—Bertram F. Linz	4-20	134
RFC's Approval of Texmass Loan Criticized Before Senate Committee—Bertram F. Linz	4-20	136
Marshall Plan Countries Expected to Use 1,014,000 Bbl. Daily During Next Fiscal Year	4-20	147
Texmass Loan Defended—Bertram F. Linz	4-27	66
Rayburn to Seek Approval of Tidelands Bill During This Session	4-27	67

	Date	Page
Cotton Valley Decision	4-27	67
Cleveland A.P.I. Meeting Told Too Much Government Will Cause Trouble for Industry in Future—Kenneth B. Barnes	5- 4	57
Plea for OGD	5- 4	67
RFC Explains Texmass Loan—Bertram F. Linz	5-11	51
OGD Slight Explained	5-11	51
Basing Point Chances Poor	5-11	52
Ickes Asks Tidelands Study	5-11	52
Justice Department Files Civil Suit Against Seven West Coast Majors—Bertram F. Linz	5-18	100
California Major-Company Officials Issue Denials of Government's Charges—D. H. Stormont	5-18	103
FTC Volunteers to Investigate Oil Industry From Stem to Stern—Bertram F. Linz	5-25	85
Judiciary Committee Asks Adoption of Walter Bill	5-25	86
Critical Report Submitted, But Texmass Draws on Loan	5-25	87
Farmers Want an FTC Oil Investigation, Cannon Tells Harris	6- 1	29
Tidelands Decision—Bertram F. Linz	6- 8	29
Senate Sends O'Mahoney Bill to President	6- 8	33
How Much Lobbying?—Bertram F. Linz	6- 8	34
The Tidelands Plum—Bertram F. Linz	6-15	67
Texas and Louisiana Won't Take Court Decision as Final, Redouble Efforts to Have Congress Confirm Offshore Claim—Leigh S. McCaslin, Jr.	6-15	68
Navy Fuel Contracts Let	6-15	139
States' Rights Tidelands Bill Bogged Down in House	6-22	147
Senators Review RFC Loan for Carthage Synthetics Plant	6-22	148
Percentage of Production Asked for Homestead Lands	6-29	45
Ten Oil Investigations Have Brought No Help, Peck Says	7- 6	27
Emergency Plans for Oil Ready If and When Needed	7- 6	28
Tidelands Aftermath	7- 6	29
Massachusetts Bill Would Put State in Fuel Business	7- 6	48
Congress Places OGD Directly Under Chapman	7-13	50
ERP Program Half Over; Cost for Oil Stands at $888,500,000	7-13	52
More Fuel Contracts Let	7-13	124
All-Fuels Investigation	7-20	49
Six-Month Investigation of Gasoline Prices Authorized	7-20	50
Government Asks Plans for Mobilization of Oil Industry	7-27	157
Mobilization Planning—Bertram F. Linz	8- 3	21
Monopoly Charged Against Standard-Atlas	8- 3	21
Nationalization Rebuff	8- 3	23
No More Canol Projects	8- 3	24
United Nations Defines Continental-Shelf Law	8- 3	34
Renegotiation Protested by Oil Producers	8-10	38
Administration Gets Flexible Powers Over Materials and Inventories—Bertram F. Linz	8-17	55
New Leasing Rules Give Future Interest in Acquired Federal Lands	8-17	57
Proposal for "Interim" Tidelands Regulation Brings Protests From Industry and States, Endorsement From Interior Official	8-17	58
Controversy in Washington Over Defense Production Act—Bertram F. Linz	8-24	89
Tidelands Oil Reserve	8-24	89
California Tidelands Royalties to Federal Government	8-24	91
Texas Eastern's Rights Protected If U. S. Moves	8-24	92
ECA Ruling on Petroleum Prices in Persian Gulf May Disturb Entire Trade—Dahl M. Duff	9- 7	42
Champlin Wins Round in Fight to Keep Line From Being Declared Common Carrier	9- 7	44
Mineral Rights Bill Untangles Mess on Farm Lands Sold by U. S.	9- 7	45
Dollar Sterling Oil Controversy With Britain Quieted, But System Still Curbs Trade—Bertram F. Linz	9- 7	48
Federal Agencies to Start Administering Powers of Control Under the Defense Production Act—Bertram F. Linz	9-14	63
Lack of Preparedness Flayed	9-14	65
ECA, Companies Feuding	9-14	72
Justice Department Seeks Supreme Court's Approval of Offshore Decree	9-21	173
Industry Experts to Aid Interior Secretary Chapman in Organizing War Controls	9-21	174
Oil Industry Unaffected by 1950 Congressional Session	9-21	175
Government Agencies Start Perfecting Defense Production Act Machinery	9-28	47
Leasing Abuses Are Suspected in Federal Practices	9-28	47
Federal Agencies Turn Down Proposal to Create Petroleum Policy Council	9-28	48
Benzol Study by NPA	10- 5	118
Contractors Get Materials Priorities for Military Purposes	10- 5	119
Further Regulation of Petroleum Industry Being Framed	10-12	65
Supreme Court Passes on Three Gas-Industry Cases	10-19	57
Fuels Investigation Slated by Senate Interior Committee on Available Reserves of All Types of Fuels	10-19	58
Order Released on Plant Amortization Eligibility	11- 2	37
Tidelands Objections Filed	11- 2	40
Defense Actions Due Soon on Extending Priorities, Civilian Cuts in Use of Metals, and Allocation of Petroleum Chemicals	11- 9	50
Preserving Economic, Political Conditions Under Which Oil Industry Grew Is Major Problem, A.P.I. Members Hear—Henry D. Ralph	11-16	181
Complete Government Control of Distribution, Use of Basic Materials Will Be in Full Effect by Mid-1951—Bertram F. Linz	11-23	39
Phillips Gets AEC Job	12- 7	126
Justice Department Alert to Safeguard Competition	12-14	56
Tidelands Legal Proceedings Ended by U. S. Supreme Court	12-14	63
President's Proclamation of National Emergency Clears Way for More Controls on All Industry; Office of Defense Mobilization Formed	12-21	140
Texas Court Orders Return of Tidelands Rentals Paid to State	12-21	149
Fuel Study Extended	12-28	34
Tidelands Fight Renewed	12-28	40
IMPORTS		
Import Figures Drop of 57,000 Bbl. Daily Shown in November Imports	1- 5	33
Fight to Limit Imports Into United States Moving Toward Early Climax—Henry D. Ralph	1-19	29
Texas Co. Reduces Imports	1-26	162
Reactions to Third Consecutive Reduction in Texas Oil Allowables—Leigh S. McCaslin, Jr.	1-26	163
Imports of Crude and Products Reached New High in 1949—Henry D. Ralph	1-26	193
Imports Roundup	2- 2	25
Total Imports Reach 794,000 Bbl. Daily	2-16	71
Congress Looks at Oil Imports—Bertram F. Linz	2-23	112
Imports Quota Restored—Mexican Trade Agreement Will Be Abrogated—Bertram F. Linz	3-16	47
Commerce Official Defends Imports	3-16	47
Imports Up Again	3-16	57
Imports Bill Introduced	3-23	162
Socony-Vacuum President Says Import Rate Not Now Too High	3-30	68
Imports "Tariff Quota" Is Hinted	4- 6	49
Imports Drop From January Rate	4-13	60
Brantly Urges Increased Imports Before Rocky Mountain A.P.I. Meeting	4-20	137
SCEC Establishes Office	4-20	144
Personal Appearance of 15 Company Presidents Asked at Texas Imports Query	4-27	66
L.P.G. and Imports	4-27	67
Touring House Group Hears Complaints of Independents on Imports	5- 4	58
Imports Study Asked	5- 4	64
Imports Action Near?	5- 4	68
Compact Commission Views Imports—Henry D. Ralph	5-11	45
Imports Up During March	5-11	46
Imports Tax Asked by I.P.A.A. Directors—D. H. Stormont	5-11	48
Company Executives Tell Texas Railroad Commission Little Change Expected in Present Import Level—Roy F. Carison	5-25	81
Oil, Coal, Farm Interests Tell Congressmen Foreign Oil Is Wreaking Havoc With Domestic Industry—Bertram F. Linz	6- 1	30
Jersey Standard Says Imports Had Nothing to Do With Cutbacks in Domestic Production—Dahl M. Duff	6- 1	31
Two Committees Still Receiving Complaints Against Foreign Oil	6- 8	32
April Figures Show Import Decline of 5 Per Cent	6- 8	35
State Department Says Domestic Coal and Oil Troubles Not Due to Imports—Bertram F. Linz	6-15	65
Tax Drafters Reject Higher Imports Levy	6-15	65
Imports Hurt Importers	6-15	66
Two Congressional Committees Completing Their Reports on Imports—Bertram F. Linz	6-22	147
Changed Imports View Since Korean Attack	6-29	27
Imports Decline 64,000 Bbl. Daily From April	7-13	48
TIPRO Calls Off Imports Attack Until End of Emergency	7-13	49
Neely Report Expected to Demand Definite Restrictions on Imports Despite War Threat	7-13	51
Neely Disagrees on Import Tariff, Asks No Immediate Action	7-20	51
Imports Up, Exports Down for First Half of 1950—Henry D. Ralph	7-27	192
Import Rule Expires—Bertram F. Linz	8- 3	22
Imports and Exports Increase During June	8-17	61
Imports Campaign Silenced	9-14	70
July Imports Down	9-14	71
August 1950 Crude Imports Increase; Exports Drop	10-19	63

	Date	Page
Imports and Stocks Should Continue at About Present Levels, Executives of Major Oil Companies Advise Texas Railroad Commission—Leigh S. McCaslin, Jr.	10-26	58
How to Apply Crude-Oil Import Duty Still Not Decided	11- 9	49
September Imports Figure Shows Drop From August; Exports Up	11-16	191
Method of Administering Oil-Import Quota Provisions Under Venezuelan Agreement Expected to Be Announced by State Department—Bertram F. Linz	12- 7	53
October Daily Import Average of 886,000 Bbl. Is Gain Over September	12-14	59
Specific Allocations for Imports at Reduced Tax Rate to Be Set Up for Netherlands West Indies, Venezuelan Crude	12-28	33
INTERSTATE OIL COMPACT COMMISSION		
Transportation, Refining Problems Need Attention to Assure Free Flow of Hydrocarbons for All Needs, Brown Tells I.O.C.C.—Leigh S. McCaslin, Jr.	12-21	143
LABOR (see Manpower)		
MANPOWER (also see Governmental)		
Tide Water Is Training Personnel for New Plant	1-12	103
O.W.I.U.'s 1950 Goals	1-19	44
Sinclair Agrees to "Most Liberal" Pension Plan in Industry	2-23	119
Sinclair Declines to Amplify Union Statement on Contract	3- 2	29
Sinclair's Pensions—Dahl M. Duff	3-16	55
Unions United in Pension Talks with Socony-Vacuum	3-23	160
Three Refineries Idled by Strike in Appalachian Area	3-23	365
O.W.I.U. Signs Sinclair Offer	4- 6	46
Five Major Texaco Refineries Closed With No Settlement Yet in Sight—Henry D. Ralph	4-13	59
Deep Rock Strike	4-13	65
Deep Rock Strike Ends	4-20	139
Texaco Sues Union	4-20	142
Natural Gasoline Industry Needs Young Technically Trained Men—Otha H. Grimes	4-20	156
Refinery Strike Situation	4-27	74
Only One of Five Texaco Refineries Struck by Union Operating	5- 4	58
Quaker State Refining Co. Strike Still On	5-11	111
Special A.A.P.G. Committee Concludes Number of Students Studying Geology Should Be Halved—Ted Armstrong	5-11	93
Refinery Training Program	5-18	181
Unemployment Study	5-25	87
Independent Union Defeats C.I.O., A.F. of L. at Eagle Point—George Weber	6- 8	37
Stanolind to Transfer 400	6-22	156
Independent Union Wins at Humble Refinery	6-22	341
Refinery Strike Situation	6-22	341
Texaco Signs Contract	7- 6	83
Socony-Vacuum Liberalizes Retirement, Other Benefits	7-20	58
Texaco-Union Agreements	7-20	125
Mobilization Planning—Bertram F. Linz	8- 3	21
Truce Called in Strike	8- 3	79
Deferment Policy Set	8-10	39
Oil Companies Liberalize Previous War Protection	8-31	40
Shell Roxana Refinery Picketed	8-31	107
Texaco Strike Possible	9- 7	115
Wood River Refinery Strike Settled	10- 5	281
Petroleum Pays Higher Wages	11-16	205
1,800,000 Workers Are Employed in All Industry's Branches	11-16	209
Bureau Predicts Substantial Opportunities for Workers in Oil Production and Refining in Next 5 to 10 Years	11-23	42
Engineer Shortage Cited	12-14	66
Neodesha Employe Increase	12-21	343
MARKETS AND MARKETING		
Attack on Gas Entry Into Northeastern Market Area	1-19	34
British-Ban Deadlock—Bertram F. Linz	2- 9	48
British Embargo Stand—Dahl M. Duff	2- 9	49
Sterling Puzzle—Bertram F. Linz	2-16	68
Britain's Oil Offer—Dahl M. Duff	2-16	69
Two-Dollar Oil in Alberta Would Mean Competition for West Texas Oil in Great Lakes Marketing Area—Charles J. Deegan	2-16	73
Sun Oil Co. Seeking More Details on Its Alleged Market Violations	2-23	119
Herold Sees Limited Optimism in Oil Industry—Dahl M. Duff	3- 9	48
Transmission Fluids—George Weber	3- 9	51
Oil Talks Recessed	3- 9	57
U. S. Planning Strong Move Against British Oil Ban	3-16	49
British Oil Would Be Barred From U. S. by Monroney Bill	3-16	49
Struggle Between Sterling Oil and Dollar Oil Now a Major Factor—Dahl M. Duff	3-23	165
Coal-Strike Results in Relation to Oil Industry—Dahl M. Duff	3-30	60
New Brunswick Abandoned	3-30	76
James Bay Project	3-30	76
Officials Hoping for Prompt Answer to Dollar-Ban Note	4- 6	49
British Hold Secret Talks on American Produced Oil	4- 6	49
Former ECA Official Suggests Joint Anglo-American Study Group to Advise on Common Oil Problems—Dahl M. Duff	4- 6	54
British Reply on Oil Policy Awaited—Bertram F. Linz	4-13	72
National Gasoline Problems Those of Entire Petroleum Industry—F. E. Rice	4-20	155
Industry Should Seek to Broaden Uses of Products—H. W. Clute	4-20	156
Buyers' Market—C. O. Willson	4-27	77
Hydraulic-Brake Fluid	5-11	112
Oil Will Lose Part of Its Eastern Market to Gas, Brown Says—Dahl M. Duff	5-18	94
Third Grade Gasoline	5-18	96
Competitive Marketing Difficulties Due to Abnormal Jump in Productive Capacity, Petersen Tells A.P.I. Meeting—D. H. Stormont	5-18	104
Hall Process for Manufacturing High-B.t.u. Gas Promises Greater Residual Demand, Competition for Natural Gas	7- 6	25
Gas-Industry Needs	7- 6	46
Service Eliminates Minimum Tender, Cuts Deduction for Shipping Losses, Offers to Segregate Different Crudes—Henry D. Ralph	7-20	56
American Companies Say No Oil Going to Reds	9-28	60
Stewart Says Pipe Line to Montreal Would be Justified if Other Markets Cannot Be Developed for Alberta Crude Oil	11- 2	39
FTC Approval Sought	11- 9	190
In 5 Years Standard of California Has Made a Place for Itself in Highly Competitive East Coast Products Market—Dahl M. Duff	11-30	42
Gas Markets Specified in New England by FPC	11-30	102
Utilities Cut Use of Oil	12-21	344
MATERIALS		
More Steel for Oil	3-16	56
War Hits the Industry—Bertram F. Linz	7-27	155
Administration Gets Flexible Powers Over Materials and Inventories—Bertram F. Linz	8-17	55
NPA Lays Basis for Priorities on Steel for Oil Industry—Bertram F. Linz	11- 2	35
Pipe Scarcity Is Laid to Distribution Practices	11- 9	49
Steel Situation Is Biggest Problem Facing Oil, Porter Says	11-16	182
PAD Tells NPA Oil Industry Must Have 1,947,000 Tons of Tubular Goods for Production, Natural Gasoline in 1951—Bertram F. Linz	11-16	189
There Should Be Enough Oil Tubular Goods But Some Pipe Lines, Other Oil Projects May Have to Be Curtailed, Fairless Tells A.P.I.	11-23	43
Eastern Storms May Free More Cement for Oil-Area Use—Leigh S. McCaslin	12- 7	61
Government Orders Copper Cutback	12-14	55
Programs to Insure Availability of Urgently Needed Supplies for Drilling, Refining Awaiting NPA Approval—Bertram F. Linz	12-21	139
NATIONAL PETROLEUM COUNCIL		
Harris Bill for Creation of Oil Policy Council Opposed—Bertram F. Linz	2- 2	21
Reserves Sufficient to Meet All Demands—Bertram F. Linz	2- 2	22
1,000,000-Bbl. Excess Crude Available During Next 3 Years	2- 2	23
State Department Objects to Oil-Policy-Council Bill	4-13	64
Synthetics Study by NPC Group Will Review Bureau's Cost Figures	6-22	149
Steel Committee Named	8- 3	26
Control Plan Sought by NPC—Bertram F. Linz	10- 5	117
Steel Requirements Revealed for Oil Industry in 1951	10- 5	118
Definite Steel Program for the Oil Industry Being Prepared by PAD and NPA as Senate Committee Investigates Shortage—Bertram F. Linz	11- 9	49
NPC Group Asks Council to Take on Duties of an Industry Advisory Committee to Petroleum Administrator Chapman	12- 7	54
Oil and Gas "Availability" Committee Formed	12-28	34
PETROLEUM ADMINISTRATION FOR DEFENSE		
PAD Places Avgas Supply Step-Up Problem in Refiners' Laps—Bertram F. Linz	10-12	62
Commercial Aviation Fuel to Be Changed—George Weber	10-12	62
PAD Now Functioning With Powers and Limitations Set by Official Orders—Bertram F. Linz	10-12	63
PAD Reports Good Progress in Output Increase of Avgas—Bertram F. Linz	10-19	57
Definite Steel Program for the Oil Industry Being Prepared by PAD and NPA as Senate Committee Investigates Shortage—Bertram F. Linz	11- 9	49
Oil-Industry Controls Will Preserve Competitive Nature, Operation Methods of Oil Business to Fullest Extent, Chapman Assures A.P.I	11-16	181

PAD, NPA Reach Agreement on Scope of PAD's Activities, But Authority Over Foreign-Oil Operations Not Settled ... 11-23 40
Bruce Brown Named Deputy Petroleum Administrator ... 11-30 38
Materials Problem Is the Most Pressing Task Facing PAD, New Deputy Says ... 11-30 38
Applicants for Refinery Loans Must Go to PAD, NSRB Chairman Says ... 12- 7 125
Steel Company Representative to Meet With PAD, NPA Officials to Consider PAD's Request for Steel for Oil Operations—Bertram F. Linz ... 12-28 33

PRICE
Railroads Paying Higher Prices for Diesel Fuel ... 1- 5 90
High Court Asked to Affirm Indiana Standard Price Cutting Decision ... 1-12 31
Gas Price Minimums May Come Before Texas Legislature in 1950—D. H. Stormont ... 1-12 38
Crude-Price Adjustment ... 1-12 40
Price-Fixing Power of Corporation Commission Upheld by Oklahoma Supreme Court ... 1-26 164
Little Change in Total Stocks, Compared with 1940—John C. Casper ... 2- 9 47
Louisiana Price Cut ... 2- 9 55
Firm Crude-Oil Prices—Dahl M. Duff ... 2-16 72
Drop in Natural-Gasoline Prices May Boost Production of Recycle ... 3- 9 47
Trends in Fuel Prices ... 3-16 56
Ethyl Corp., Du Pont Cut Price of Lead Compounds ... 3-23 365
Continental Abandons Old Basis of Pricing Products ... 4- 6 51
Price Cut in 14 Fields ... 4- 6 53
Stanolind Boosts Tariff ... 4-13 129
Crude Cut in Mississippi ... 5- 4 69
Penn Grade Price Raised ... 5- 4 69
Freight Rate Cuts Due ... 5-11 111
Gas Prices: Going Up—Henry D. Ralph ... 5-18 91
South Carolina Considering Fixed Prices for Gasoline—Dehl M. Duff ... 5-18 105
Blazer Recommends "Market Leader" System Be Dropped—Dahl M. Duff ... 5-25 82
British Government Permits Companies ¾-Pence Gasoline Price Increase—Dahl M. Duff ... 6- 8 40
Gasoline Prices Again Up for Senate Investigation ... 6-15 66
Benzene Price Differential ... 6-15 139
FTC Watchdog ... 6-29 46
SOCAL Raises Crude Price ... 7- 6 25
Price Investigation Pending ... 7- 6 29
Six-Month Investigation of Gasoline Prices Authorized ... 7-20 50
Union Ups Heavy Crude and Residual 20 Cents ... 7-20 55
El Paso Rate Investigation ... 7-20 117
Penn Crude Price Raised ... 7-27 160
Leaders of Oil Industry Voice Alarm at Federal Plan to Include Petroleum Products in Renegotiation Bill ... 3-17 56
Panhandle Eastern Pipe Line Rate Changes Suspended ... 8-17 153
Penn Grade Up Again ... 8-31 44
ECA Ruling on Petroleum Prices in Persian Gulf May Disturb Entire Trade—Dahl M. Duff ... 9- 7 42
Repricing Bill One of Several Delayed in Congress ... 9-14 66
Caltex Protests Pricing—Refuses to Deliver Persian Gulf Oil Products to Europe—Dahl M. Duff ... 9-14 72
"Ethyl" Antiknock Compounds Prices Raised ... 9-14 152
FTC May Order Jobbers to Pay Retail Prices ... 10-26 56
Union Oil Co. Advances Postings for Heavy-Type Crudes ... 10-26 63
FTC Fights for Ruling on Old Detroit Gasoline Pricing Case ... 11-30 103
First Public Posting of Export Prices for Arabian, Qatar, and Iraq Crudes Announced by Socony-Vacuum—Dahl M. Duff ... 12- 7 67
E. I. du Pont de Nemours & Co., Inc., to Raise Antiknock Prices ... 12- 7 125
Government Asks Oil Industry to Hold December 8 Prices on Crude, December 18 on Products—Bertram F. Linz ... 12-28 31
Industry Leaders Agree to Hold Present Prices—Dahl M. Duff ... 12-28 31
Producers Prepare to Counter Price Freeze With Data on Rising Costs; One Study Shows Materials Up 17 Per Cent—Henry D. Ralph ... 12-28 32
Five Standard Oil Companies and Atlas Supply Co. Deny Pricing Charges ... 12-28 35
Supreme Court Action Upholding Oklahoma Minimum Price Statute May Prompt Other States to Set Price of Gas at Well Head—Henry D. Ralph ... 12-28 36

RESEARCH
Murphree Sells Chemists on Research Value ... 1-12 35
Pettingill Cites Industry's Contribution to Progress ... 4- 6 46
Not the End of the Road for Natural Gasoline—A. H. Weil ... 4-20 156
Texas Co.'s Plastic Bearing ... 5- 4 164
Products Research ... 5-18 96
Use of Periodicals in Petroleum Research—B. G. Hardie and M. J. Voigt ... 5-18 121
Use of Ethers Studied ... 5-18 182
Indiana's Research ... 6-15 70
Gulf Coast Area Keeps Abreast of Technological Progress Through Research Activity—Emory N. Kemler ... 6-22 187
Research Unit Completed ... 7- 6 84

RESERVES (see this under PRODUCTION)

SAFETY (also see DRILLING, PRODUCTION, REFINING)
Industrial Safety Organization Plan—G. L. Farrar and A. M. Platt ... 7-27 318
Dangling Chain Will Disappear from Our Highways ... 8-31 39

STATISTICS (see NATURAL GASOLINE, PRODUCTION, REFINING)

STRIKES (see Manpower)

SUPPLY AND DEMAND
Bureau of Mines Forecast for 1950 ... 1-26 159
1,000,000-Bbl. Excess Crude Available During Next 3 Years ... 2- 2 23
West Coast Demand Forecast ... 3-23 158
Storage Problems Change—John C. Casper ... 4- 6 52
Solution for Balancing Supply and Demand—John T. Oxley ... 4-20 153
Natural Gas Only Segment of Industry Still Facing an Unsatisfied Demand—John C. Casper ... 5- 4 136
Petroleum Demand Forecast—D. H. Stormont ... 5-11 94
Rising Demand in First Quarter 1950 ... 6- 1 38
Rising Demand—John C. Casper ... 6-15 72
Sudden Demand Jump Not Expected as Result of War ... 7-20 49
Octane for War—George Weber ... 8- 3 25
Outlook Is Minimum of Controls, No Serious Shortages of Steel Products or Petroleum Supplies in Near Future—Bertram F. Linz ... 8-10 37
Current Figures on Resid Supply and Demand Indicate Shortage—John C. Casper ... 8-31 41
Bureau of Mines Forecast for Last Half of 1950 Revised—John C. Casper ... 9- 7 41
Oil-Supply Study Sought ... 9-14 66
How Refiners Can Meet Military Fuel Requirements and What May Be Left for Civilians Discussed at Atlantic City Forum—George Weber ... 9-21 169
Plenty of Tetraethyl Lead to Maintain Antiknock Quality of Civilian Gasoline Despite Possible War Requirements ... 9-21 171
I.P.A.A. Says More Steel Needed—Henry D. Ralph ... 10- 5 121
Planty of Oil—Under Present Military Program ... 10-12 55
No Shortage of Heating Oils for New England ... 10-26 57
T.I.P.R.O. Calls for More Steel to End Black Market of Tubular Goods—Leigh S. McCaslin, Jr. ... 10-26 61
Chapman Thinks All Needs for Avgas Can Be Met ... 11- 2 37
Domestic Oil Demand May Rise to More Than 8,000,000 Bbl. Daily, A.P.I. Hears ... 11-16 183
Plenty of California Oil Is Available for a Few Years, But Shortages May Be Likely as Use Increases, Minckler Tells A.P.I. Group ... 11-16 187
Per Capita Consumption in U. S. 25 Times Rest of World ... 11-16 206
1951 Demand for All Oils to Be 7,162,000 Bbl. Daily ... 12-14 58
Tide Water Head Predicts Oil Demands Can Be Met ... 12-14 59
Study of Benzene Supply, Demand for Next 10 Years Planned ... 12-21 140
New England Fuel Supplies Are Better Than Last Year, Committee Says ... 12-21 141
Exports of Southwest Gas May Cause Shortage in Area, FPC Member Says ... 12-21 144
Crude Output Increase Not Required, I.O.C.C. Told ... 12-21 144

TANK CARS (see this heading under PIPE LINE)

TANKERS (see PIPE LINE)

TAXES
Oil Tax Collections ... 1- 5 25
4 of 10 Texas Legislators Favor Oil-Tax Boost ... 1- 5 34
Higher Taxes for Corporations to Offset Excise-Tax Cuts ... 1-12 32
Truman Asks Congress to End Depletion Allowances ... 1-26 159
Oil's Reply to Truman's Attack on Depletion Allowance ... 1-26 160
Tax-Bill Criticism ... 2- 2 27
Depletion Dickering—Bertram F. Linz ... 2- 9 50
Depletion-Allowance Hearing Brings Oil-Industry Spokesmen to Washington—Bertram F. Linz ... 2-16 67
Depletion Defended Before Ways and Means Committee—Bertram F. Linz ... 2-23 111
Lube Tax Repeal Sought ... 2-23 130
Texas Oil Industry to Pay 10 Per Cent More This Year—Leigh S. McCaslin, Jr. ... 3- 9 56
$1.05 Imports Tax Asked ... 3- 9 57
Tax From Oil, Products Running Ahead of Last Year ... 3- 9 121
Earnings Frozen in Foreign Currencies Given Tax Delay ... 3-30 63
No Tax Exemption for U.O.P. ... 4-13 59
Taxes From Oil Rise ... 4-13 137
U.O.P. Asks Review ... 4-20 143
Record Gasoline Taxes—Dahl M. Duff ... 4-27 73
Tax-Collection Record ... 5- 4 163

	Date	Page
Imports Tax Asked by I.P.A.A. Directors—D. H. Stormont	5-11	48
Depletion Victory	5-25	87
Cardboard Coin to Give Tax Lowdown to U. S. Motorists	6- 8	30
Oil-Tax Revenues Up	6- 8	95
Tax-Bill Objection	7-13	50
Tax Collections Drop	7-13	125
Senate Drops Plan for Levy on Abandonments	8-10	37
Plantation to Use 14, 18-in. on New Carrier	8-17	61
Gasoline Taxes Gain	9-31	108
Taxes From Oil Show Gain	11-21	113
House Passes Excess-Profits Tax Bill	12-14	55
TRAINING PROGRAMS (See Manpower)		
TRANSPORTATION (see this heading under PIPE LINE)		
TRENDS, INDUSTRY		
Natural Gas in East Coast Area Challenges Supremacy of Fuel Oil, Coal—Dahl M. Duff	1- 5	26
Business Forecast for 1950—John C. Casper	1- 5	31
Herold Sees Limited Optimism in Oil Industry—Dahl M. Duff	3- 9	46
Industry Assets: 30.2 Billion	7-13	45
Hallanan Tells Chapman Oil Is Prepared for Emergency	7-13	54
Texas Eastern's Rights Protected If U. S. Moves	8-24	92
Pipe-Liners Club Formed	9-14	142
Business Abroad Must Gain Local Good Will, Says Holman	10-19	71
Hamon Says Industry Must Ward Off Bureau Controls	11-16	183
There Is More Competition Now Than Ever Before, Taylor Says	11-23	44
FTC Says Refining Plant Concentration Leads Most All Other Industries	12-21	142
The Middle East—A Region of Superlatives	12-21	154
WAGES (see Manpower also)		
Oil Workers Union Seeks Wage Hike	2-23	130
Labor Department Seeks Minimum Pay for Refiners	9-14	64

Trade Associations

	Date	Page
AMERICAN ASSOCIATION OF OILWELL DRILLING CONTRACTORS		
Drilling Contractors Discuss the Steel Supply, Personnel Training, and Rising Costs—Henry D. Ralph	10-12	60
Drillers Chat About Business Outlook, Steel Supplies, New Methods, Competitive Practices	10-12	61
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS		
Better Knowledge of Seismic Work Needed, A.A.P.G. Told	1-19	44
Nearly 4,000 Exploration Scientists Gather to Compare Notes—Charles J. Deegan	4-27	106
Special A.A.P.G. Committee Concludes Number of Students Studying Geology Should Be Halved—Ted Armstrong	5-18	93
New Oil Provinces—D. H. Stormont	10-26	62
AMERICAN CHEMICAL SOCIETY		
Chemists' Conclave in 1951	3- 9	56
New Products, Processes—Leigh S. McCaslin, Jr.	3-30	57
Synthetic Fuels and Lubricants, New Processes for Making Chemicals from Petroleum Discussed at A.C.S.'s Convention—Leigh S. McCaslin, Jr.	4- 6	42
A.C.S. Program Readied	8-17	135
A.C.S. Meeting Includes Many Petroleum Papers	9- 7	45
A.C.S. Forms High Polymer Chemistry	9- 7	116
AMERICAN GAS ASSOCIATION		
Speakers Tell A.G.A.'s Natural Gas Department Pressing Need of Industry Is for Better Public Relations Program—Henry D. Ralph	5-11	49
Storage and Supplemental Gas Sources Studied by A.G.A.—George Weber	6- 1	34
A.G.A.'s Efforts for Separate Gas Agency Futile	11-23	40
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS		
Products Research	5-18	96
Oklahoma A.I.Ch.E. Group Studies Latest Developments in Natural-Gas and Refinery-Processing Operations—R. B. Tuttle	10-12	71
AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS		
Electrical Applications in Oil Industry Discussed at A.I.E.E. Meeting—John C. Reidel	11- 2	34
AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS		
Report on Reserves—A.I.M.E.—Dahl M. Duff	2-23	123
Viewpoints of Management, Research, Engineering Given in A.I.M.E. Forum—Dahl M. Duff	2-23	129
A.I.M.E. Petroleum Branch Hears About Oil for an Asian War—Joseph A. Kornfeld	10-12	58
Papers Presented at A.I.M.E. Devoted to Detailed Studies of Oil Reservoirs, Drilling Fluids—D. H. Stormont	10-19	66
All-Texas A.I.M.E. Group Studies Natural-Gas Industry	12- 7	60
A.I.M.E. Members Hear 290 Technical Papers—Dahl M. Duff	2-16	76
AMERICAN PETROLEUM INSTITUTE		
O.I.C.C. to Film Story of Oil	1-26	162
Production Meeting	3- 2	32
A.P.I. Decides Local Bodies Should Initiate, Develop Projects—Roy F. Carlson	3- 9	52
A.P.I. Fights Statism—Roy F. Carlson	3-16	52
Porter to Head A.P.I.—Leigh S. McCaslin, Jr.	4- 6	44
Mid-Continent A.P.I. Members Hear Reports on Plastic Pipe, Well Density, High-Pressure Injection, Other Subjects—Ted Armstrong and Kenneth B. Barnes	4- 6	50
Brantly Urges Increased Imports Before Rocky Mountain A.P.I. Meeting	4-20	137
Corrosion, Waste Disposal, Refinery Maintenance Problems Highlight Discussions at Annual Refining Division Meeting—George Weber	5- 4	55
Cleveland A.P.I. Meeting Told too Much Government Will Cause Trouble for Industry in Future—Kenneth B. Barnes	5- 4	57
Current Refining Position Sound, Refiners at A.P.I. Meeting Agree—George Weber	5-11	47
Competitive Marketing Difficulties Due to Abnormal Jump in Productive Capacity, Petersen Tells A.P.I. Meeting—D. H. Stormont	5-18	104
Special A.P.I. Train Planned	6- 8	38
A.P.I. Issues Monograph	6-22	341
Petroleum Industry Sets Safety Mark, A.P.I. Says	7- 6	23
Code 25 Group Reactivated	7-20	57
A.P.I. Group Hears of Plans to Expand and Modernize Present Product Line Facilities—Paul Reed	9-21	172
California Extends Welcome to A.P.I. 30th Convention	11- 9	A-20
Preserving Economic, Political Conditions Under Which Oil Industry Grew Is Major Problem, A.P.I. Members Hear—Henry D. Ralph	11-16	181
Oil-Industry Controls Will Preserve Competitive Nature, Operation Methods of Oil Business to Fullest Extent, Chapman Assures A.P.I.	11-16	181
Petroleum One of Most Important Factors in Determining Whether Free People Will Survive, Porter Tells A.P.I.	11-16	182
Steel Situation Is Biggest Problem Facing Oil, Porter Says	11-16	182
Hamon Says Industry Must Ward Off Bureau Controls	11-16	183
Domestic Oil Demand May Rise to More Than 8,000,000 Bbl. Daily, A.P.I. Hears	11-16	183
Substantial Synthetic-Fuels Industry Seen for Future	11-16	184
New-Type Diesel With Silver Bearings Will Subject Lubes to High Operating Temperatures, Navy Spokesman Predicts	11-16	185
Unattended Pipe-Line Stations Cut Costs, Symposium Told	11-16	186
Plenty of California Oil Is Available for a Few Years, But Storages May Be Likely As Use Increases, Minckler Tells A.P.I. Group	11-16	187
Lawyer Says Capture Rule Can Be Set Aside by Court	11-16	187
Humble President Says Present Depletion Set-Up Successful	11-16	187
Substantial Synthetic-Fuels Industry Seen for Future	11-16	194
How to Improve A.P.I. Code 26—G. H. Supple and Charles Nicholson	11-16	346
A.P.I.'s Secondary-Recovery Volume	11-16	389
There Should Be Enough Oil Tubular Goods But Some Pipe Lines, Other Oil Projects May Have to Be Curtailed, Fairless Tells A.P.I.	11-23	43
Frank Porter Reelected A.P.I. Head for 1951	11-23	44
There Is More Competition Now Than Ever Before, Taylor Says	11-23	44
O.I.I.C. Public Relations Program Praised; Larger Campaign Planned	11-23	44
Thread Compounds for Casing to Be Used on Trial Basis	11-23	45
1950 Set New Highs for Oil Industry, A.P.I. Discloses	12-28	37

	Date	Page
AMERICAN SOCIETY OF MECHANICAL ENGINEERS		
A.S.M.E. Discusses Operational Cost-Cutting — Leigh S. McCaslin, Jr.	10- 5	122
Oil Industry Can Meet Mobilization Needs	10- 5	123
Data Reveal That Use of Vanadium in Residual Fuel Oil Contributes to Furnace, Boiler Corrosion, A.S.M.E. Told—George Weber	11-30	48
A.S.M.E. Discusses Orifice Metering, Austenitic Steels, Synthetic Lubricants, at Seventy-First Annual Meeting—George Weber	12- 7	63
AMERICAN SOCIETY FOR TESTING MATERIALS		
Oil-Measurement Tables	4-13	137
A.S.T.M. Raises Maximum Vapor Pressure for Gasoline in Northern States During Winter Months—George Weber	7-13	47
New Testing Methods	11-16	379
CALIFORNIA NATURAL GASOLINE ASSOCIATION		
C. N. G. A. Elects Officers	7-20	117
Natural-Gasoline Industry's Technical Advances Over Past Quarter Century Discussed at C.N.G.A. Silver Anniversary Meeting—D. H. Stormont	11-16	188
INDEPENDENT NATURAL GAS ASSOCIATION OF AMERICA		
Gas Regulation Can't Be Achieved on the Common-Carrier Concept Applied to Other Utilities, Marshall Newcomb Tells I.N.G.A.A.—Joseph A. Kornfeld	10-26	59
INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA		
Petroleum Demand Forecast—D. H. Stormont	5-18	95
I.P.A.A. Says More Steel Needed to Maintain Adequate Oil Supply—Henry D. Ralph	10- 5	121
PAD Tells NPA Oil Industry Must Have 1,947,000 Tons of Tubular Goods for Production, Natural Gasoline in 1951—Bertram F. Linz	11-16	189
I.P.A.A. Seeks Data on Steel-Export Shipments	12- 7	54
INDEPENDENT REFINER'S ASSOCIATION OF AMERICA		
I.R.A.A. Elects Officers	1-19	32
I.R.A.A. Says It Supports Industry's Depletion Fight	2-23	209
I.R.A.A. Asks for Gas Proration	3-25	156
I.R.A.A. Appoints Two	4- 6	112
I.R.A.A. Asks Texas Body to Prorate Gas on Crude Basis	4-13	57
Gas-Liquids Problem	4-20	140
I.R.A.A. Counsel Named	7- 6	84
INSTRUMENT SOCIETY OF AMERICA		
Continuous Measurements and Central Monitoring of Many Oil-Industry Processes Are Shown at I.S.A. Conference	9-28	53
KENTUCKY OIL AND GAS ASSOCIATION		
Diederich Named President of Association for 1950-51	6-29	42
MID-CONTINENT OIL AND GAS ASSOCIATION		
Industry Must Redouble Efforts Against Those Seeking to Nationalize Economy, Mid-Continent Oil and Gas Men Told—Joseph A. Kornfeld	11- 9	54
NATIONAL ASSOCIATION OF CORROSION ENGINEERS		
Corrosion Problems Described at Annual N.A.C.E. Meeting—Paul Reed	4-13	68
N.A.C.E. Hears Cost of Corrosion—Leigh S. McCaslin, Jr.	10-19	62
NATIONAL OIL SCOUTS AND LANDMEN'S ASSOCIATION		
Grand Check Meeting in Oklahoma City—Henry D. Ralph	6-15	73
NATIONAL PETROLEUM ASSOCIATION		
Commercial Use of Military's New Heavy-Duty Lubricating Oil Is Criticized at N.P.A. Meeting—Dahl M. Duff	4-20	141
NPA Lays Basis for Priorities on Steel for Oil Industry—Bertram F. Linz	11- 2	35
NATURAL GASOLINE ASSOCIATION OF AMERICA		
Gas-Liquids Problem—Kenneth B. Barnes and Roy F. Carlson	4-27	69
Dr. Katz Presented Highest N.G.A.A. Award at Meeting	4-27	69
Gas-Liquids Forum at N.G.A.A.—Roy F. Carlson	5- 4	60
N.G.A.A. Told Everyone Must Sell Oil Industry	11- 2	43
PACIFIC COAST GAS ASSOCIATION		
P.C.G.A. Issues 1949 Proceedings Report	1- 5	69
Gas-Pipe-Line Study at P.C.G.A. Annual Conference D. H. Stormont	6- 1	39
Advent of Natural Gas Discussed at P.C.G.A. Annual Meeting	8- 3	30
PETROLEUM ELECTRIC SUPPLY ASSOCIATION		
P.E.S.A. Elects Sutter to Head Group During Coming Year	6-29	41
PETROLEUM EQUIPMENT SUPPLIERS ASSOCIATION		
Petroleum Equipment Suppliers Discuss Vital Work	3-16	65
Steel Allocation for Oil Equipment Tops Discussion at P.E.S.A. Meeting	11-23	45
SOCIETY OF AUTOMOTIVE ENGINEEHS		
S.A.E. Meeting Defends Additives—C. O. Willson	1-12	36
Boyd Tells S.A.E. Industry Will Be Called Upon to Improve Fuels	1-12	37
Lube-Oil Rating—George H. Weber	2- 9	53
New TCP Development May Mean More Miles Per Gallon	6- 8	36
S.A.E. Sees a Future for the Gas Turbine, Standardization of Military Fuels, Troubles with Residue in Lube Oils	8-24	97
Crankcase-Oil Code O.K.'d	11- 9	189
S.A.E. Group Reviews Data on Aircraft and Diesel Fuels, Antiknock Progress, Use of L.P.G. Products in Motor Buses—R. B. Tuttle	11-16	193
SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS		
Nearly 4,000 Exploration Scientists Gather to Compare Notes	4-27	106
SOCIETY OF EXPLORATION GEOPHYSICISTS		
Nearly 4,000 Exploration Scientists Gather to Compare Notes	4-27	106
SOUTHERN GAS ASSOCIATION		
Flare-Gas Problems—Leigh S. McCaslin, Jr.	3-30	56
Trends in Pipe Lining at S.G.A. Galveston Meeting —Paul Reed	4- 6	41
TEXAS INDEPENDENT PRODUCERS AND ROYALTY OWNERS ASSOCIATION		
T.I.P.R.O. Calls for More Steel to End Black Market of Tubular Goods—Leigh S. McCaslin, Jr.	10-26	61
If War Comes, Industry Must Act, Lutes Says	10-12	61
TEXAS MID-CONTINENT OIL AND GAS ASSOCIATION		
Oil Industry Must Be Prepared for an Attack on U. S., Jennings Tells Texas Group—Carl F. Hoot	10-12	66
WESTERN PETROLEUM REFINERS ASSOCIATION		
Optimism in Refining—George Weber	3-30	66
W.P.R.A. Plans Announced	7-13	125

Field Developments

	Date	Page
ARIZONA		
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	342
ARKANSAS		
Production and Reserves Data—Annual and Cumulative Production, Remaining Reserves, by Fields, by States (Compiled by The Oil and Gas Journal)	1-26	252
Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	282
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	314
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	330
Arkansas Encourages L.P.G. Program	10- 5	285
Newly Dedicated Pan-Am Southern Delayed-Coking Unit Charges 9,300 Bbl. Daily—Oscar A. Fuchs	10-26	76
Northwest Arkansas Test	12-28	105
CALIFORNIA		
California Independents to Push Conservation Controls	1- 5	33
Gas Wastage Charged	1- 5	33
Production and Reserves Data—Annual and Cumulative Production, Remaining Reserves, by Fields, by States (Compiled by The Oil and Gas Journal)	1-26	252
Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	300
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	315
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	339
Leasing Rule Changes Expected After Huntington Beach Offer	2- 2	29
Downtown Drilling Sought in Los Angeles	2-23	130
Elk Hills Plans	3-23	157
Oil and Gas Traps in California—John C. Hazzard, R. R. Simonson, P. H. Dudley, H. W. Weddle, and D. M. Davis (A.A.P.G. Abs.)	4-27	119
Sedimentary Features Suggesting Turbidity Flow in Deep Southern California Tertiary Basins—M. L. Natland (Abs.)	4-27	177

	Date	Page
Tidelands Study in California	6- 8	30
Cuyama Valley Still Commands Interest	6- 8	109
Gas-Injection Project Temblor Zone, Kettleman North Dome Field—D. R. Knowlton and R. W. Masters	6-15	93
Drilling Outlook Good in California	7- 6	93
California Operators Open Up Some Shut-in Producers	7-13	54
Blowouts in California Drilling Operations Causes and Suggestions for Prevention—A. J. Horn	7-27	289
Shut-in Heavy-Crude Wells, Reopened, Result—Gain in California's Production; Heavy-Crude Prices Raised—D. H. Stormont	8- 3	29
Richfield Oil Corp. Will Soon Complete Final Leg of New Trunk Line to Move Cuyama Field Crude to Refineries—D. H. Stormont	8-17	64
California's Production Now Near Top Potential	9-14	68
Overdrilled Placerita Canyon Nears Exhaustion—D. H. Stormont	10-12	82
Southern California Gas Demands Can Be Met With Storage, Imports—D. H. Stormont	11- 2	40
California Extends Welcome to A.P.I. Thirtieth Convention	11- 9	A-20
Who's Who in California Oil—D. H. Stormont	11- 9	A-21
Union Oil Is West's Oldest Independent	11- 9	A-21
General Petroleum Sells in Seven States	11- 9	A-22
Shell's California Production 70,000 Bbl.	11- 9	A-23
Sunray One of California's Major Producers	11- 9	A-23
Signal Oil Took Name From Famous Field	11- 9	A-24
Richfield Production All in California	11- 9	A-24
California Standard Holds Many "Firsts"	11- 9	A-24
Tide Water Associated Nears 50 Years	11- 9	A-25
Wilshire Always Guided by a Machris	11- 9	A-26
Texas Co. Merger of Four Concerns	11- 9	A-26
Hancock Has Had But One President	11- 9	A-27
Superior Holds Several Deep-Drilling Records	11- 9	A-27
Heavy Crudes Play Heavy Role in Reversing California's Production Trend	11- 9	A-28
California Exploratory Drilling Marked by a Succession of High Points	11- 9	A-41
Heavy Demand Boosts California Refining	11- 9	A-46
"Super Inch" Gas Line Is Completed—D. H. Stormont	11- 9	A-54
California Nation's Second-Ranking State in Natural-Gasoline-Plant Capacity	11- 9	A-59
California Still Short on Natural Gas	11- 9	A-63
Oil Conservation in California	11- 9	A-65
California Is Headquarters for Important Oil-Country Equipment Suppliers	11- 9	A-67
Los Angeles Harbor Junior College (No. 20 of a series)	11- 9	A-90
Plenty of California Oil Is Available for a Few Years, But Shortages May Be Likely as Use Increases, Minckler Tells A.P.I. Group	11-16	187
Coalinga Nose Unit to Be in Full Operation by First of Year—D. H. Stormont	11-23	51
California Well-Spacing Law Is Upheld	11-23	51
In 5 Years Standard of California Has Made a Place for Itself in Highly Competitive East Coast Products Market—Dahl M. Duff	11-30	42
800-Well Drilling Program in California Planned by Shell Oil Co.; Shell Development Opens Expanded Laboratories—D. H. Stormont	11-30	44
California's December Oil Output May Set New Record	12-28	39
Col-Tex Must Buy Oil From Fields Ratably, Court Says	12-28	40

CAROLINA, NORTH AND SOUTH

Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	332
South Carolina Considering Fixed Prices for Gasoline—Dahl M. Duff	5-18	105
Gas for Carolinas	6-22	154

DAKOTA, NORTH AND SOUTH

12,000,000 Acres Under Lease in North Dakota	11-23	48

EASTERN

Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	332
Water-Flood Operations in Illinois, Indiana, Kentucky, Ohio, Michigan, and West Virginia—R. R. Vincent and K. P. Huffman	6- 1	57
Massachusetts Bill Would Put State in Fuel Business	7-13	48
California Company's Wildcatting in "Virgin" Area in Pennsylvania Under Noses of Eastern Operators Adds Interest to Gas Discovery—Dahl M. Duff	11- 9	58
New Oriskany Sand Gas Pool—Q. L. Wilcox	11-23	91

FLORIDA AND SOUTH GEORGIA

Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	282
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	314
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	332
Wildcatting in Florida—J. E. Banks	6-22	252
Oil Exploration in Florida During 1949—Herman Gunter	6-22	310
The Gulf Coast in the Next 25 Years—Harold Vagtborg	6-22	324

ILLINOIS-INDIANA

Production and Reserves Data—Annual and Cumulative Production, Remaining Reserves, by Fields, by States (Compiled by The Oil and Gas Journal)	1-26	250
Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	294
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	318
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	348
Niagaran Reefs in Illinois and Their Relation to Oil Accumulation—H. A. Lowenstam	3- 2	48
Benoist Water Flood Patoka, Illinois, Pool—H. S. Barger	5-25	109
Water-Flood Operations in Illinois, Indiana, Kentucky, Ohio, Michigan, and West Virginia—R. R. Vincent and K. P. Huffman	6- 1	57
Unitized Town-Lot Field Has High, Consistent Output—Neil Williams	6- 8	35

KANSAS-NEBRASKA-MISSOURI

Production and Reserves Data—Annual and Cumulative Production, Remaining Reserves, by Fields, by States (Compiled by The Oil and Gas Journal)	1-26	250
Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	290
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	314
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	336
Kansas Allowable Unchanged	3- 2	32
Second Pool for Forest City Basin, Kansas?	4-13	141
Drilling in Western Nebraska—William L. Herschman	5- 4	146
Smaller Field—Kansan Produces Oil From Three Wells, 11 Ft. Deep	6- 8	34
Water Flood in Neosho County, Kansas (Part 1 of 4 parts)—J. C. Joers, P. Grandone and D. B. Taliaferro	6-29	60
South-Central Nebraska Gets Oil	6-29	113
Keas Drilling Co. Water Floods Bartlesville Sand in Neosho County, Kansas—700 Ft. (Part 2 of 4 parts)—J. C. Joers, P. Grandone, and D. B. Taliaferro	7- 6	46
Pilot Water Flood of Cox and Hamon Has Unusual Layout of Equipment (Part 3 of 4 parts)—J. C. Joers, P. Grandone, and D. B. Taliaferro	7-13	82
Deep Rock Water Floods 304 Acres (Part 4 of 4 parts)—J. C. Joers, P. Grandone, and D. B. Taliaferro	7-20	91
Why Doesn't the Salina Basin Produce?	8- 3	95
Pipe Pool Sought by Kansas Firm	8-24	97
Julesburg Basin Trend 90 Miles Long	9- 7	123
"Way Out West in Kansas"	11-30	107
Oklahoma-Kansas Set Allowables	12- 7	61

KENTUCKY

Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	282
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	350
Water-Flood Operations in Illinois, Indiana, Kentucky, Ohio, Michigan, and West Virginia—R. R. Vincent and K. P. Huffman	6- 1	57
Texas Gas Progressing With Compressor Work	8-24	93

LOUISIANA

Bay Marchand Salt Dome One of World's Largest	1- 5	33
Production and Reserves Data—Annual and Cumulative Production, Remaining Reserves, by Fields, by States (Compiled by The Oil and Gas Journal)	1-26	250
Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	277
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	311
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	328
Louisiana Recovery Advisers Group Formed to Solve Production Problems	2- 2	30
Louisiana Allowable Cut	2-23	115
Humble Tops Discovery List in South Louisiana With 12 Successes	3- 2	26
Tidelands Brief by Perlman Says Texas Has No Valid Claim to Marginal Sea	3- 2	27
Louisiana's Suspension of Tideland Leasing	3- 2	27
Louisianans Oppose Allowable Cut	3-23	164
Marsh Island Leasing	3-23	164
Digby Says Imports Knocked $2,500,000 Off Louisiana's Income Tax	3-30	62
Offshore Bids Skipped	4- 6	53
Geophysical Case History of Delhi Field, Northeast Louisiana—W. E. Hollingsworth (S.E.G. Abs.)	4-27	120
Case History of Benton Field, Bossier Parish, La.—Stefan Von Croy and Claude N. Valerius (S.E.G. Abs.)	4-27	120
Advisory Group Asks Recovery Study of All Louisiana Oil Fields—Leigh S. McCaslin, Jr.	5- 4	69
Tidelands Decision—Bertram F. Linz	6- 8	29

	Date	Page
Texas and Louisiana Won't Take Court Decision as Final, Redouble Efforts to Have Congress Confirm Offshore Claim—Leigh S. McCaslin, Jr.	6-15	68
Growth Pattern of Gulf Coast Oil Industry	6-22	166
Status Report on Offshore Drilling in Louisiana—A. L. Vitter, Jr.	6-22	221
112 Wells Drilled Below 12,000 Ft. in Gulf Coast Area in 1949—Lucy Dee Owen	6-22	244
Caddo Lake Holds Distinction of Being Nation's First Marine-Drilling Operation	6-22	267
Louisiana's Outlook Bright—T. M. Winfiele	6-22	289
The Gulf Coast in the Next 25 Years—Harold Vagtborg	6-22	324
Forty-Three New Louisiana Laws Cover Oil, But Industry Escapes Legislative Session Without Serious Restrictions—Leigh S. McCaslin	7-20	59
Louisiana Fields Running at Top Productive Ability	10-19	66
MICHIGAN		
Production and Reserves Data—Annual and Cumulative Production, Remaining Reserves, by Fields, by States (Compiled by The Oil and Gas Journal)	1-26	252
Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	298
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	332
Water-Flood Operations in Illinois, Indiana, Kentucky, Ohio, Michigan, and West Virginia—R. R. Vincent and K. P. Huffman	6- 1	57
MISSISSIPPI-ALABAMA		
Production and Reserves Data—Annual and Cumulative Production, Remaining Reserves, by Fields, by States (Compiled by The Oil and Gas Journal)	1-26	252
Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	282
Mississippi Tax Outlook	2- 2	29
Mississippi Gets Travis Peak Oil	2-16	149
Growth Pattern of Gulf Coast Oil Industry	6-22	166
112 Wells Drilled Below 12,000 Ft. in Gulf Coast Area in 1949—Lucy Dee Owen	6-22	244
Mississippi Oil and Gas Development—James F. Borthwick, Jr.	6-22	260
The Gulf Coast in the Next 25 Years—Harold Vagtborg	6-22	324
Successes in Adams County, Mississippi	7-20	131
Mississippi Mystery (pictures showing well on the Wiggins uplift in Stone County, Mississippi, now near 19,400 ft.)	12-14	52
NEW MEXICO		
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	328
Gas-Oil-Ratio Repair and Control ... in West Texas and New Mexico—T. B. Lambert and R. M. Hippard	3-30	86
Types of Oil and Gas Traps in West Texas and Southeast New Mexico—J. H. Bartley and R. T. Cox (A.A.P.G. Abs.)	4-27	119
Third Largest "Oil State"—Charles J. Deegan	4-27	128
Basins of the Southwest	12- 7	133
NORTHERN		
Basins of the Southwest	12- 7	133
OKLAHOMA		
Price Fixing Power of Corporation Commission Upheld by Oklahoma Supreme Court	1-26	164
Elk City Decision; Whole Formation a Common Supply Source, Ruling Holds	1-26	165
Production and Reserves Data—Annual and Cumulative Production, Remaining Reserves, by Fields, by States (Compiled by The Oil and Gas Journal)	1-26	248
Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	282
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	317
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	335
Oklahoma Cuts Allowable	3- 2	32
Oklahoma Test Interests Geologists	3-16	137
Elk City Development Proceeding at Active Pace—Roy F. Carlson	4- 6	66
Overproduction Charged to 24 Companies in Oklahoma	4-13	65
Types of Oil and Gas Traps in Southern Oklahoma—Erwin L. Selk (A.A.P.G. Abs.)	4-27	119
Fort Cobb Anticline—A Geophysical Case History—Francis F. Campbell (S.E.G. Abs.)	4-27	120
Petrographic Study of Pennsylvanian Sandstones in Murray County, Oklahoma—E. L. Lucas (Abs.)	4-27	179
Good Production Found in Old Skellyville Field—Philip C. Ingalls	9-14	67
35 Rigs Drilling in Ringwood Field—Joseph A. Kornfeld	9-14	84
Expanding Ringwood—Philip C. Ingalls	9-28	52
Northwestern Oklahoma Activity	9-28	125
Oklahoma-Kansas Set Allowables	12- 7	61
Water Flooding in Weber Pool—Washington County, Oklahoma—James H. Johnston and James A. West (Part 1)	12- 7	79
Water Flooding in Weber Pool—Washington County, Oklahoma—Kenneth H. Johnston and James A. West (Part 2)	12-14	90
Wildcats Attack Beckham Area Puzzle	12-14	137
OREGON AND WASHINGTON		
Wildcat May Give Oregon Its First Production—Polly DeArmond	9-14	67
ROCKY MOUNTAIN AREA		
Powder River Basin Activity	1- 5	99
Wyoming Price Cut	1-19	32
Washington State Test Has Good Show	1-19	99
Rocky Mountain Area	1-26	252
Production and Reserves Data—Annual and Cumulative Production, Remaining Reserves, by Fields, by States (Compiled by The Oil and Gas Journal)	1-26	252
Discoveries, New Pays for 1949—Their Size and Location by Fields and States	1-26	315
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	340
Wyoming Properties Sold	2-23	127
Stanolind Revamps Fort Laramie, Wyo., Station	2-23	201
Rocky Mountain Outlook Picks Up	3- 9	125
Types of Oil and Gas Traps in Rocky Mountain Region—Alex W. McCoy, III, Robert L. Sielaff, H. W. Bass, George R. Downs, and John H. Maxson (A.A.P.G. Abs.)	4-27	119
Oil and Gas Possibilities in Post-Frontier Cretaceous Rocks of Wyoming—J. David Love (Abs.)	4-27	176
Nevada Wildcat Announced	5-11	54
Gasoline Price Probe	5-18	97
The Search for Oil and Gas in the Rocky Mountain Region—Dorsey Hager	5-18	116
Four-State Land Play in Julesburg Basin	5-18	189
Drilling Development in Sussex Area, Johnson County, Wyoming—E. Y. Long	7- 6	43
Julesburg Basin Trend 90 Miles Long	9- 7	123
Wyoming Operators Get a Break	9-14	155
Wyoming Correlations—Penetration Chart for Rock Springs Uplift and Green River Basin Fields	10-19	93
Wyoming Correlations—Penetration Chart for Rawlins Uplift, Great Divide, and Washakie Basins	10-26	105
Worland Investment by 3 Firms to Increase Return by $2,500,000 Per Year	11-23	47
Oil Area Increasing in Importance, Porter Says	12- 7	64
Nevada's Deepest Test Completed Dry at 10,314 Ft., But Gives Valuable Geologic Data; Idaho Activity Increasing—Polly DeArmond	12-14	63
Wind River Exploration by Cities Service Oil Co. (picture)	12-28	35
TEXAS, GENERAL		
Cheaper Insurance for Oil Industry—D. H. Stormont	1-19	41
Reactions to Third Consecutive Reduction in Texas Oil Allowables—Leigh S. McCaslin, Jr.	1-26	163
Production and Reserves Data—Annual and Cumulative Production, Remaining Reserves, by Fields, by States (Compiled by The Oil and Gas Journal)	1-26	246
Texas Thought Ready to Junk M.E.R.'s—D. H. Stormont	2- 9	54
Texas Tax Bills	2-16	74
Texas Railroad Commission Faces Decision on MER as Basis for Setting Production Allowables—D. H. Stormont	2-16	75
Oil Wells in Houston	2-23	115
MER System Junked by Texas Railroad Commission—Leigh S. McCaslin, Jr.	2-23	117
Tidelands Brief by Perlman Says Texas Has No Valid Claim to Marginal Sea	3- 2	27
Texas Railroad Commission Settles on Depth-Acreage Method of Determining Allowables—Leigh S. McCaslin, Jr.	3- 2	28
T.I.P.R.O. Hits Other Southwestern States—Carl F. Hoot	3-16	50
Texas' Gas Utilization—Leigh S. McCaslin, Jr.	3-16	51
Texas Proration Protest—Roy F. Carlson	3-23	155
Higher Allowables for Texas Fields in April	3-23	156
Texas Allowable Reaction—Carl F. Hoot	3-30	55
Texas' Oil-Tax Income Down	3-30	56
Salt-Water Disposal Ruling	4-13	58
Gas-Liquids Problem—Roy F. Carlson	4-20	140
Texas Allowable Hike in May	4-20	144
New Deep-Well Proration Formula	4-27	65
Regional Discussion of Pennsylvanian Reefs of Texas—Carl B. Richardson	4-27	118
It's Now Kelley-Snyder	5-11	52
Texas Gas Allowables	5-18	169
Extra Producing Day in Texas—Roy F. Carlson	5-25	97
Tidelands Decision—Bertram F. Linz	6- 8	29
Texas and Louisiana Won't Take Court Decision as Final, Redouble Efforts to Have Congress Confirm Offshore Claim—Leigh S. McCaslin	6-15	68

	Date	Page
Fourth Texas Allowables Boost Gives July 2,445,935 Bbl. Daily	6-22	151
Gas Ratio May Be Cut in Texas	6-22	151
Humble's New 370-Mile 18-In. Oil Pipe Line—Leigh S. McCaslin, Jr.	6-29	58
Return to MER in Texas	7-20	55
Production in Texas May Set Record for September	8-24	94
Texas Production May Have to Be Cut	9-21	176
Texas Railroad Commission Asks Oil Company Executives to Testify at October 19 Proration Hearing	9-28	50
New Ellenburger Area Excites Texans	11- 2	117
160,083-Bbl. Daily Cut in Texas Oil Allowable Made by Railroad Commission Following Testimony That Stocks Are Ample—Leigh S. McCaslin, Jr.	11-23	48
Competing With Persian Gulf Oil on World and Domestic Markets or in Battle Is Challenge Facing Texas Oil Men, Thompson Says—Roy F. Carlson	12- 7	59
Basins of the Southwest	12- 7	133
Railroad Commission Orders Continuation of Present Texas Oil Output for January: Gas-Oil Ratio Rule to Be Maintained—Joseph A. Kornfeld	12-21	147
Commissioner Predicts Texas Production Will Set Record in 1951—Joseph A. Kornfeld	12-28	40

EAST TEXAS

Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	268
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	307
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	323

TEXAS GULF COAST

Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	256
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	305
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	319
Types of Hydrocarbon Accumulation and Geology of South Liberty Salt Dome, Liberty County, Texas—Michel T. Halbouty, and George C. Hardin, Jr., (A.A.P.G. Abs.)	4-27	119
Gulf Coast Reaction on Tidelands Decision—Leigh S. McCaslin, Jr.	6- 8	30
Growth Pattern of Gulf Coast Oil Industry	6-22	166
East Village Mills Field Currently a Gulf Coast Hot Spot—O. S. Hervey and Barrett E. Booth	6-22	200
112 Wells Drilled Below 12,000 Ft. in Gulf Coast Area in 1949—Lucy Dee Owen	6-22	244
The Gulf Coast in the Next 25 Years—Harold Vagtborg	6-22	324
Old Ocean Test Closely Watched	6-22	349
Bold Stepout Opens New Area at Hull	11- 9	201
New Extensions to Oil and Gas-Distillate Field in Corpus Christi Bay Holding Attention of South Texas Operators—Joseph A. Kornfeld	11-23	49
Moss Bluff Revived; Salt Dome Area Producing After Lapse of 17 Years—Joseph A. Kornfeld	11-30	45
Radio Programs, Barbecues, and Speeches Will Highlight Observance of Spindletop Field's Fiftieth Anniversary	12-28	38
Blue Ridge Field Stages Comeback—Joseph A. Kornfeld	12-28	52

NORTH TEXAS

Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	273
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	307
Simpson Strike in North Texas	7-13	127

PANHANDLE

Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	273
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	326
Texas Panhandle Test Gets Oil in Penna.	2- 2	97
Texas Panhandle Gas Prices	6-17	64
Gas Injection Operation Due for Watkins Lime Field	9-14	66
Palo Duro Basin Warrants Attention	10-12	147

SOUTHWEST TEXAS

Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	256
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	305
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	319
Borden County Wildcat of Barnsdall Flows Gas, Oil	3-23	157
Borden, Kent Get New Wells, Howard County Test Staked—Carl F. Hoot	4- 6	43

WEST CENTRAL TEXAS

Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	307
Wildcat, Development, and Total Completions by Months and Footage Drilled	2-26	323
Fort Chadbourne Field Scene of Active Drilling Program in West Texas—Roy F. Carlson	8- 3	48
Terry County Is Not Another "Scurry"	9-21	389

WEST TEXAS

Ranching to Oil; Scurry County Takes Change in Stride; 180 Wells Drilling—D. H. Stormont	1-12	37
28,000 Acres Sold in Scurry County—Carl F. Hoot	1-19	41
Field Name, County, Location, and Initial Production of Discovery Wells (Year 1949)	1-26	269
Discoveries, New Pays for 1949—Their Size and Location by Fields and by States	1-26	311
Wildcat, Development, and Total Completions by Months and Footage Drilled	1-26	324
N. End Midland Basin Gets Pre-Permian Oil	1-26	375
Scurry County's New Reef Fields Largest Addition to Nation's Reserves Since East Texas—D. H. Stormont	2- 2	46
Critical Wildcats in Scurry County Area—D. H. Stormont	2-23	116
Scurry Reef Play Jumps Southwest	2-23	219
Wildcat in Cogdell-North Snyder Gap Gets Production—Carl F. Hoot	3- 2	28
Scurry County North End Gas Narrowed	3- 2	103
Scurry Summary—Roy F. Carlson and Carl F. Hoot	3- 9	54
Reef Shutdown in Scurry	3- 9	58
Wildcat Finds Canyon Reef in Middle of Kent County	3-16	52
Pressure Study in Scurry	3-16	53
Gas-Oil-Ratio Repair and Control . . . in West Texas and New Mexico—T. B. Lambert and R. M. Hippard	3-30	86
West Texas Reefs Jump West and South	3-30	147
New Reef Oil in Kent County 15 Miles North	4- 6	119
Kelley, North Snyder Single Reservoir, Engineers Say	4-20	143
Scurry Analysis—Kenneth B. Barnes and Roy F. Carlson	4-27	64
Structure-Forming Role of Limestone Reefs in Eastern Platform Area of West Texas—Gerson H. Brodie (A.A.P.G. Abs.)	4-27	118
Geology and Geophysics of North Snyder Area, Scurry County, Texas — Neal Clayton (A.A.P.G. Abs.)	4-27	118
Types of Oil and Gas Traps in West Texas and Southeast New Mexico—J. H. Bartley and R. T. Cox (A.A.P.G. Abs.)	4-27	119
Third Largest "Oil State"—Charles J. Deegan	4-27	128
West Texas Oil—1950—James C. Watson	4-27	132
Pegasus and Meadow Fields, Midland and Upton Counties, West Texas—Frederick Shepherd and Malcolm E. Wilson, Jr.	4-27	140
Porosities Can Be Obtained From Radioactivty Logs in West Texas—R. E. Bush	4-27	153
Development in Corrosion Prevention in West Texas —H. D. Murray and W. H. Crenshaw	4-27	166
Refinability of West Texas Crude Oils	4-27	195
Shallow Pay in Scurry Reef Area	4-27	221
More Reefs; Barnsdall Hits in Kent; Warren Opens Scurry Pool—Kenneth B. Barnes	5- 4	61
Material-Balance Calculations North Snyder Field Canyon Reef Reservoir	5-11	85
Hockley Reef Strike	5-18	97
300,000-Acre Lease Taken	5-18	97
Permian Basin Sets Dizzy Pace	5-25	185
Pegasus Report—Carl F. Hoot	6- 8	39
More Reef Production Found in Kent	6-15	153
New Midland Field—Roy F. Carlson and Carl F. Hoot	6-22	150
West Side of Permian Basin Gets Reef Production	7- 6	29
35 Operators Plan Big Gas-Conservation Project	7-13	49
North Cowden, One of Nation's Largest Gas-Injection Projects, Now in Operation—N. H. Rahmes	7-20	74
Kent County Takes West Texas Spotlight as Pennsylvanian Lime Discoveries Hint Reef Formations—Roy F. Carlson and Carl F. Hoot	8- 3	27
Pegasus Drilling—Roy F. Carlson	8-17	80
Drop in Well Pressures Spurs Program for Cooperative Pressure-Maintenance Project in Scurry County, Texas	9-28	51
What It Takes to Drill a $75,000 Wildcat in Scurry County	10- 5	138
Composite Electrical-Radioactivity Log—Central Basin Platform in Permian Basin—Philip C. Ingalls	10-19	122
Todd Deep Crinoidal Unit to Get Secondary-Recovery Facilities—Roy F. Carlson	10-26	94
Texas Railroad Commission to Hear Production Problems in Scurry County	11- 2	43
Canyon Reef Operators Oppose Railroad Commission Suggestions to Cut MER, Combine Scurry Fields, or Shutdown for Water Drive	11- 9	65
Plymouth's Operations at Benedum—Roy F. Carlson	11-23	66
Scurry Field Has 2½ Billion Barrels	11-23	88
Progress Report: Midland County	11-23	117
Allowable for Canyon Reef Fields Cut to 100 Bbl. Per Well	12- 7	59

Foreign

	Date	Page
AFRICA		
Oued Beth Development	3-16	65
New Concessions	4- 6	55
Ethiopian Test Abandoned	4-20	147
French Development Work in Algeria to Be Speeded Up	5-25	101
Drilling in Africa	6- 1	47
Peanuts Pipe Line	6-29	53
Tunisian Area Surveyed	6-29	53
Oil Search Dropped	7- 6	32
Durban Refinery Delayed	8-31	48
Africa Seeks Lubricants in U. S.	10-12	139
Products Line Considered	10-26	66
Plant Will Be Built in South Africa to Make Petrol From Coal	11- 2	46
ALASKA		
Oil Search in Alaska	3-30	74
Geophysical Exploration in Northern Alaska—Herbert Hoover, Jr., and Howard Myers (S.E.G. Abs.)	4-27	120
Navy Brings in Oil Well	10-19	67
ANGLO-AMERICAN OIL PACT (also see Foreign heading under Economics)		
Sterling Accord Emerging—Dahl M. Duff	6-15	82
Britain Sends Answer on Dollar-Sterling Controversy	6-15	84
Britain's Latest Note Avoids Formal Agreement on Sterling-Oil Problem	6-22	160
ARGENTINA		
Argentina Lets Contract	2- 9	59
British-Argentine Trade Is Well Under Expectations	2-16	80
Better Argentine Attitude Indicated	3- 2	36
Argentina Shuts Down Ultramar Refinery	4- 6	55
Imports of Crude Again to Be Permitted in Argentina	5- 4	73
"Esso" Enters Argentina	7-13	61
Oil Found on Argentine Side of Tierra del Fuego	10-12	74
AUSTRALIA		
Increased Australia Imports	1-19	40
Australian Gasoline Rationing	2-16	83
Deep Test Spudded	4-13	74
Deep Test Spudded	6- 1	47
Storage Expansion in Australia	7-13	58
Australia Keeps Looking	9-21	183
AUSTRIA		
Chemical Plants Planned in France and Austria	2- 9	59
Austria Blames Russia for Heavy Damage to Reservoirs	3- 2	39
Austria Gets Producer	3-16	60
Zisterdorf Complaint	6- 8	41
New Austrian Production	6-15	84
BELGIUM		
Belgian Refinery Started	5- 4	77
BOLIVIA		
Bolivian Wildcat Finds Oil	9-28	60
Sufficient Refinery Facilities to Meet Domestic Requirements for Petroleum Products in Bolivia to Be Provided at Sucre, Cochabamba—Dahl M. Duff	11- 9	69
BRAZIL		
Bahia Refinery Completion to Highlight 1950 Activity	1- 5	38
Order Placed for Pipe for Brazilian Products Line	2- 2	91
Help From Shale	4- 6	140
Small Refinery in Brazil Readied: Larger Plant Projected	8-31	46
Amazon Well Started	9- 7	51
Standard Not Interested in Brazilian Shale	9-14	73
Brazil Starts Stockpile	9-14	73
Work Started on Brazilian Refinery; Pipe Lines Planned	11-23	53
BURMA		
Burma's Recovery Halted	2- 2	38
Sabotage in Burma	3- 2	37
Reconstruction Prospects of Burma Oil Industry Appear Remote	8-17	68
CANADA		
Recent Canadian Oil Developments—J. D. Gustafson	1- 5	63
Shell Obtains Reservations in Canada	1-19	38
Hewetson Says Imperial Plans No Exports to U. S.—Henry D. Ralph	1-26	162
New Refineries	1-26	169
West Coast Gas Line From Canada—Paul Reed	2- 2	28
Canadian Oil Outlook	2- 9	46
Little Change in Total Stocks, Compared With 1949—John C. Casper	2- 9	47
Imperial Oil, Ltd., Refinery Contract Awarded	2-16	83
British Ban in Effect	2-23	113
Canadian Refinery Contract Let	3- 2	39
Operating Refineries in Canada	3-23	323
Work on Shell's Montreal Refinery Is Progressing	3-23	366
Saskatchewan Exploration	4- 6	54
Big Canadian Production Gain	4- 6	55
Contracts Let for Regina Plant Expansion Program	4-20	146
Work at Winnipeg Begins	4-27	85
Seismic Work Problems in the Canadian Bush Country—W. J. Tellington	4-27	114
Canada Asks FPC to O.K. Panhandle Project	4-27	212
1950 Oil Outlay	5- 4	77
Big Exploration Spread	5- 4	77
Crown Reserve Leasing	5- 4	77
Canadian Exploration Status	5-11	125
Record Lease Sale	5-18	98
Canadian Pipe-Line Policy—Charles J. Deegan	5-18	99
British American Plant Nearing Completion	5-25	176
Natural Gas for Toronto?	6- 8	38
Aerial Survey Started in Canada	6- 8	38
First Export Permit	6- 8	38
Line to Winnipeg Planned	6- 8	39
Reduced Crude Decarbonization at Modernized British American Refinery—George Weber	6- 8	54
1958 May See Canadian Crude Ample for Needs	6-15	85
Canadian Bush Country and Its Demands on Geophysical Equipment—Charles J. Deegan	6-15	90
Alberta Gas Contest Heightens—Dahl M. Duff	6-29	47
Shell Gas for Calgary	7- 6	91
Refinery Supply Line Planned	7-13	54
New Bonus Record in Alberta	7-13	54
Canadian Gas Plan	7-13	123
Largest Great Lakes Tankers	7-20	58
New Dock at Sarnia	7-20	58
Systematic Development Program Followed by Canadian Gulf Oil Co. in Alberta's Stettler Oil Field—Philip C. Ingalls	7-20	70
2,329 Rotary Rigs Operating in U. S., Western Canada—Neil Williams	7-20	176
Helicopter Surveys in Canada	8- 3	26
Oil in Western Canada—Dr. Oliver B. Hopkins	8- 3	54
Sohio May Spend Millions in Saskatchewan Drilling Campaign	8-10	45
Canada's Viking Sand Gets Recognition	8-24	203
Canadian Interprovincial Pipe Line Case History—Loren F. Kahle	9-21	207
Nature's Forces Help in Making Winter River Pipe-Line Crossings—F. A. Madill	9-21	230
Edmonton Crude Storage Starts	9-21	375
Saskatchewan Cat Cracker	9-21	382
Canadian Firm to Build $18,000,000 Refinery at Froomfield	9-28	54
More Reserves Proved for Alberta	10- 5	287
Superior Subsidiary in Canada Changes Name; Offers Stock to Step Up Exploration, Drilling Campaign	10-19	68
Stewart Says Pipe Line to Montreal Would Be Justified If Other Markets Cannot Be Developed for Alberta Crude Oil	11- 2	39
Gulf Coast Gas to Canada	11- 2	114
Alberta Crown-Lease Sale Adds Heavily to Government Treasury	11-9	66
Canada's Entire Economy Being Changed by Alberta's Oil Development; Hearings Under Way to Assess Gas Potentials—Kenneth B. Barnes	11-16	192
117 Geophysical Crews Now at Work in Western Canadian Areas	11-23	46
New Alberta Discovery by Calgary Independent in the Barons Area on the Southwest Plains	11-30	46
Alberta Crude Being Stored	12-14	66
Launching of New Canadian Tanker	12-21	148
Canada—Developing Recently Discovered Reserves	12-21	169
Secondary Recovery for Turner Valley?—J. A. Harvie	12-21	246
Progress Report on Prairie Petroleum	12-21	285
New Shell Refining Units at Montreal Now Operating	12-28	43
Toronto May Get Texas Gas	12-28	91
CHILE		
Chilean Exports	2- 9	59
New Chilean Agency	6-29	54
Chile's New Oil Authority	7-27	165
Gasoline Plant for Chile	7-27	165
Chilean Personnel Change	9- 7	50
Oil Production Found in Cerro Sombrero Region of Chile	11-30	55
CHINA		
Joint Company to Develop Sinkiang's Oil Resources	4-13	73
China to Press Oil Search	7- 6	30
British Won't Go Along on Ban of Oil Sales to China Reds	7-13	58
No Fuels for Reds—Dahl M. Duff	7-20	62
Chinese Reds Seize Oil	7-27	165
Chinese Exploration Starts in Sinkiang	11- 2	46
COLOMBIA		
New Colombian Oil Law—Dahl M. Duff	1-19	38

	Date	Page
Wildcatting Decline in Colombia; Production at All-Time High—Dahl M. Duff	2-16	80
Colombian Engineer Proposes Cooperative Public Relations Program	3- 2	35
Colombia's Oil Revenue	3- 2	35
Colombian Pipe-Line Bids Asked	3-23	167
DeMares Arrangement—Dahl M. Duff	5- 4	70
Colombia Plans 112-Mile Products Pipe Line Into Bogota	6- 1	47
2 Tetuan Completed	6- 8	42
Tropical Transfers Assets	7- 6	32
Contract Let for Pipe Line in Colombia	7-13	61
Pipe-Line Survey Begun in Colombia	7-20	64
120-Mile Puerto Salgar-Bogota Line Surveyed in Colombia	8-17	73
Tropical Wins Long Fight for North Colombian Test	8-24	100
Colombian Committee Reports Unfavorable Attitude Toward Foreign Private Investments Has Developed	8-31	45
New Colombian Minister	8-31	47
Tropical Finances 105-Mile Products Carrier to Cali, Colombia	8-31	47
Colombian Petroleum Co. Well in Barco Concession Makes 650 Bbl. Daily	10-12	74
Lightning Kills 23 on Tropical Oil Co. Oil Barges	10-19	72
Sweeping Decree Law Promulgated by Colombian Government Meets Virtually All Objections Which Have Barred Exploration	11-30	53
DENMARK		
Denmark Oil Purchases	2-23	127
Denmark Concession Agreement	3- 2	39
First Jutland Well Fails	9- 7	52
EAST INDIES		
New Guinea Exports	3- 2	37
Difficulties of Isolated Jungle Location Fail to Retard Oil-Development Program by Caltex Affiliate in Sumatra—Dahl M. Duff	10-26	65
Borneo Crude to California	12-14	62
East Indies: Republic of Indonesia	12-21	162
Indonesian Repair Work Still Under Way But Nears Its Economic Limit	12-21	275
ECUADOR		
Exploration in Ecuador	2- 2	34
Ecuador Activity in 1949	2-23	126
Shell Abandoning Ecuador Projects After Six Dry Holes	3- 9	62
American Concern Planning an Active Drilling Campaign in Ecuador—Cecil V. Hagen	12-21	270
EGYPT		
Egyptian Company Formed	1- 5	36
Jersey Standard, Anglo-Egyptian, Socony-Vacuum Meet Obstacles in Egypt—Dahl M. Duff	4-20	145
Sterling for Egypt Imports	7-27	164
Egypt Bans Oil Cargoes to Israel; Americans Object	8-10	50
Three Oil Companies Get New Prospecting Licenses in Egypt	8-17	68
Egypt Refinery Expansion	8-17	71
Anglo-Egyptian Directors Ask Mining Law Change	8-31	48
Hopes Rise That Egyptian Parliament Will Remove Legal Barriers to Oil Exploration	9-21	183
ETHIOPIA		
Tough Wildcat in Ethiopia	4-27	81
FRANCE		
Port Jerome Refinery	1- 5	61
French Financing Agency	1-19	38
Anglo-Iranian Ready to Put New Dunkirk Unit on Stream	1-26	169
French Refining Gain	2- 2	36
Chemical Plants Planned in France and Austria	2- 9	59
France Wants Iraq Line——Dahl M. Duff	3-16	62
French Wildcat Finds Oil	3-30	73
French Agency to Disband	3-30	73
First Significant French Production Being Developed Near Pau	5-18	110
Largest Tankers Ordered	5-18	111
French Firms Get Grant for Oil Companies	6- 1	47
R.A.P. Encounters Unusual Problems in Laying 165-Mile Toulouse-Bordeaux Gas Line—Jean P. LaCroix	6- 8	62
New French Producer	6-29	53
French Pipe for Pemex	6-29	54
French Agency Dead	7-13	60
French Field Grows	8- 3	34
French Reconstruction of Gironde Refinery Gives Caltex Group Virtually a New Plant in Bordeaux Area	8-24	101
ECA Funds Allocated for Refinery Plants in France, Italy	9-21	182
U. S. Buys 10,500,000 Gal. of French Alcohol for Synthetic Rubber	11- 2	38
Quantities of Domestically Refined Lubes, Motor Fuel That Can Be Sold on French Market Set by Government	12- 7	70
SGHP's New Dunkirk Refinery—J. Audrault	12-21	242
France's Lacq Field	12-21	283
Solvents Production	12-28	129
GERMANY		
New German Discovery	1-19	37
Germany's Deepest Well	1-19	37
Oil From Qatar	1-26	166
German Test Finds Oil	2-16	83
Ruhr Plant to Operate	3- 2	39
New German Record	3-16	60
German Reserves Up	4-13	73
Discovery of Anticlines, Stratigraphic Traps May Mark New Era in Germany's History; Record Drilling Program Planned	5-11	56
Emsland Test Successful	6- 8	41
Plant Conversion Approved	7- 6	31
German Officials Propose Use of Idle Hydrogenation Plants to Boost Nation's Refining Capacity—Dahl M. Duff	7-13	60
First Offshore Well in Germany	7-20	60
Germany Adds to Cracking Facilities for Heavy Crude	7-27	164
Scheerhorn Test in Western Germany a Success	10-12	74
Anglo-Iranian's Hamburg Facilities Rehabilitated	11-16	409
Modernization Completed at A.I.O.C. Eurotank Refinery	12-21	300
West Germany Plans Call for Capacity Operation	12-21	378
GREECE		
Greece to Make Oil Study	7- 6	31
Greece Limits Oil Use	12-14	69
HUNGARY		
Hungarian Nationalization	1- 5	38
INDIA AND PAKISTAN		
Work Stoppages From Strikes in Sumatra	1-19	39
Pakistan Test Suspended	2-23	126
Exploration in India	2-23	126
India Takes U. S. Lubes	3- 2	39
Oil Shows Found in Eastern India Wildcat—Dahl M. Duff	5-11	58
Pakistan Invites Companies	6- 8	42
Oil Found in Pakistan	8- 3	34
Indian Earthquake Causes Damage to Assam Oil Installation	9- 7	52
Burmah Wildcat Planned	9-14	78
Assam Earthquake Hits Digboi Oil Field	10-12	73
Much Geological and Drilling Work Remains in Search for Oil in Pakistan—Dr. H. Crookshank	10-12	108
Pakistan Oil Firm Formed	11- 9	73
ISRAEL		
American Operators Being Invited to Enter Israel	7-13	58
ITALY		
Proposed Italian Law to Control Oil	1-19	37
Italian Terminal Finished	2- 2	36
Italian Exploration	2- 2	36
Refinery to Go on Stream	4-27	85
Sicilian Oil Law Approved	5- 4	74
New Aramco Office	5-11	55
ECA Guarantees Jersey Investment in Italy in ANIC Refinery Project	5-18	110
Sicily's New Law	5-18	111
Progress in Italy	5-25	99
Italian Propane Order Spots Growth of Industry	8-17	71
Gentle Structure, Surface Signs Draw Gulf Concession in Sicily	9- 7	51
Italian Government Oil Company Contract	9- 7	52
Trieste Plant Expands	9-14	76
Independent Italian Refining Company Orders Midget Crackers for Installation at Genoa, Rome Plants	9-21	182
ECA Funds Allocated for Refinery Plants in France, Italy	9-21	182
Milan Refinery Orders Perco Unit	10-19	72
Italian Well Blows Out	10-19	72
Po Monopoly Questioned	11-23	54
AGIP Accelerates Petroleum Activities in Italy	12-21	280
JAPAN		
Japanese Find Two Good Reservoirs Under Yabase Field	2-23	126
Japanese Refinery Is Now in Operation	4- 6	111
Postwar Exploration for Petroleum in Japan—Godfrey F. Kaufmann (Abs)	4-27	123
Japan Looks Up—Dahl M. Duff	6-29	50
Socony Supplied Japan	6-29	52
Nippon's Refineries—Bertram F. Linz	10-26	67
Japanese Refinery Enlarged	11- 9	73
The Far East—Still Undergoing Rehabilitation	12-21	160
KOREA		
Oil Men Leave Korea	7- 6	30
MEXICO		
Mexico Speeds Drilling	1-12	42
Mexican Refineries	1-12	44
Mexican Wildcat Tests 7,000 Bbl. Daily	1-19	39
Minatitlan Refinery Taking Crude From Mexican Test	2- 9	58
Foreign-Backed Firm to Drill 30 Wells in Mexico	2- 9	58
Mexican Conference	2-16	82
Tortuguero Offset Spudded	2-16	82
Mexico's Petroleum Future	3- 2	35

	Date	Page
Mexico Restricts Gasoline Imports	3- 9	62
Pemex Isthmus Line Started	3-23	167
Operating Refineries in Mexico	3-23	325
Bermudez Says New Refinery at Salamanca Nearly Ready	3-30	76
Mexican Field Extended	5- 4	74
Refinery, Pipe Line to Help Meet Rising Mexican Needs	5-25	101
Mexican Loan Still Alive?	6- 1	47
Mexican Refinery Runs, Drilling, Production Ahead of 1949	6-15	85
Sabalo Claim Rejected	6-15	85
Mexican Oil Treaty Abrogated—Bertram F. Linz	6-29	44
Mexican Loan?	6-29	45
French Pipe for Pemex	6-29	↓
Mexican Oil Revenue Sets Record	7-13	61
Mexican Expansion	7-27	165
Mexican Drilling Venture Starts—Dahl M. Duff	8- 3	32
Mexican Exports of Crude and Fuel Oil Running at 10-Year High	8-10	52
Pemex Production Up in First Half	8-31	46
Seventy Rigs Now Active in Mexico, Ten More to Start	9- 7	51
Mexican Loan Unconfirmed	9-14	73
Pemex Modernizes Plants	9-14	74
Pemex Buying Mexican Gulf	11-23	54
Three Oil Areas Opened in Mexico During October	12- 7	71
Mexico—Attention Focused on Isthmus	12-21	170
Mexican American Completes 18 Months of Operations—Bart W. Gillespie and J. Ralph Coleman	12-21	261
MIDDLE EAST		
Refinery Shut Down in Haifa, Israel	1- 5	36
Neutral Zone Test Is Dry	2-16	82
Trucial Coast Test Spudded	2-23	127
Personnel Being Reduced	2-23	127
Iran's Parliament Begins Debate on Revision of Agreement With Anglo-Iranian	3- 2	37
Offshore in Middle East	3- 9	62
Haifa-Abqaiq Line Talked	3-23	167
Arabian American, Faced With Necessity for Taking Soft Currency, to Reduce U. S. Personnel, Spend Fewer Dollars	4-13	74
Syrian Search to End	4-13	74
Neutral Zone Survey	4-13	74
Arbiter Holds I.P.C. Concession Includes Offshore Waters; Superior Concession Covers Only Qatar Continental Shelf	5-11	55
Tapline Syrian Right-of-Way Again Questioned as to Legality	5-11	55
I.P.C., Iraq Officials Drop Talks on Concession Terms	5-25	100
Employe Swap	6- 8	42
Venezuela, Saudi Arabia Production at New Highs	6-15	84
Iranian Royalty Advanced	6-15	84
Free Trade in Arabia	6-22	161
Israeli Officials Seek Way to Reopen Haifa Plant	6-22	161
Transjordan Plans Refinery	6-29	54
Middle East Picture—Paul Reed	7- 6	21
Haifa Refinery to Operate on Limited Scale	7- 6	32
Aramco's Accounting	7- 6	33
New Deal in Iran—Dahl M. Duff	7-13	57
Venezuela, Saudi Arabia Set New Production Records in June	7-20	62
Crude for Haifa	7-20	64
Directional Hole for Iraq	7-27	165
Abqaiq—World's Largest Producer—Paul Reed	8- 3	42
Levant Coast Will Become World's Biggest Shipper of Crude When New Middle East Pipe Lines Are Completed—Dahl M. Duff	8-10	49
Iraq Petroleum Co., Ltd., to Increase Rate to Iraq Government	8-17	68
Kuwait Deepens Test	8-31	48
Most-Hampered Trans-Arabian Line Starts Delivering Crude to Tankers in December—Paul Reed	9- 7	46
Caltex Protects Pricing—Refuses to Deliver Persian Gulf Oil Products to Europe—Dahl M. Duff	9-14	72
Haifa Refinery Meets Home Demand—Source Vague	9-14	78
Tapline Pipe Layers Surmount Problems in Traversing Mountains and Desert—Paul Reed	9-14	109
Aramco Crude Output in Saudi Arabia Sets Record	9-21	183
Construction of Sidon, Lebanon, Marine Terminal of Trans-Arabian Pipe Line Co.—Paul Reed	9-21	210
Logistics Posed Real Problems During Building of Tapline—Paul Reed	9-21	349
First Shipments of Steel Pipe for I.P.C. Project to Middle East Bring Sharp Protests by I.P.A.A., Others	11- 9	73
Strategic Oil Supplies—Gustav Egloff	11-16	277
Middle East Prices—Dahl M. Duff	11-16	408
Shipment of Pipe for Iraq Line Arrives From U. S.	11-23	54
First Public Posting of Export Prices for Arabian, Qatar, and Iraq Crudes Announced by Socony-Vacuum—Dahl M. Duff	12- 7	67
Ain Dar Field Found in 1948 to Be Brought in Next Year	12- 7	68
Kuwait Crude Contract	12- 7	68
Competition Has Brought Sidon Crude Price Down to Common Level	12-14	68
The Middle East—A Region of Superlatives	12-21	154
Tapline's Pump Stations—Paul Reed	12-28	71
Tapline Pump Stations Pose Housing Problems	12-28	94
NETHERLANDS		
Shell Research Program	2-16	83
Caltex Refinery Operating	3-30	73
Caltex Opens 20,000-Bbl. Pernis Refinery Near Rotterdam	6- 1	42
Royal Dutch Celebrates	6-29	53
World Congress Plans	6-29	53
NORWAY		
Norse Refinery Operating	7-27	164
Bombed-Out Norway Plant Back in Operation	10-12	74
PANAMA		
New Panamanian Fuel	5- 4	74
PERU		
Peru's Petroleum Law Found Favorable by United States Companies—Dahl M. Duff	1-12	41
Peru Oil Law's Status Uncertain As New Government Planned	4-13	73
"Profits" Squeeze in Peru	5- 4	74
Peruvian Drilling Program	5-11	58
South Peru Is Oil Prospect	8- 3	33
Two Major Operators Get New Exploration Permits in Peru	8-17	73
Argentine Buys 1,000 Bbl. Daily of Peruvian Oil	9- 7	50
Peru May Change Oil Law	11-23	54
Action on Proposed Law Which Would Open Up Peru to Renewed Exploration Put Off Until Early Next Spring—Dahl M. Duff	12-14	67
PHILIPPINES		
Philippine Oil Law—Dahl M. Duff	2- 2	36
Philippine Oil Law	3-30	76
Filipino Mission Wants Plant to Stir Industry	9-14	78
PORTUGAL		
Portuguese Test Well Near Lisbon at 3,500 Ft.	11- 2	46
RUSSIA		
Joint Company to Develop Sinkiang's Oil Resources	4-13	73
Russian-Iranian Dispute	5-25	100
Report on Russia	6- 8	42
Soviet Oil Progress—Dahl M. Duff	11-16	408
Russian Oil Output	12- 7	70
Is Petroleum a Soviet Weakness—Demitri B. Shimkin	12-21	214
SOUTH AMERICA, GENERAL		
South America—One of World's Major Oil Areas	12-21	171
SPAIN		
Spanish Refinery Starts	3- 2	39
Ciespa Wildcat Dry	3-16	60
Refinery Goes on Stream in Spain; Expansion Planned	7- 6	31
Spain Reserves Oil Area	8-24	103
Capacity of Cartagena, Spain, Refinery May Be Increased to 30,000 Bbl. Daily With New Installations—Dahl M. Duff	11-30	52
Spanish Shale-Oil Report	12-28	129
TRINIDAD		
Major Producer Adds Rigs, Will Make Petrochemicals	1-12	44
Trinidad Oil Discovery	6- 1	47
Wildcatting and Refinery Modernization Highlight Activity in Trinidad	12-21	296
TURKEY		
Turkey Schedules 10 Wells in Ramandag Field for 1950	1- 5	68
Turkey Wildcat Spudded	3- 2	37
UNITED KINGDOM		
Britain Seeks to Prevent American Firms Supplying Japanese Refineries—Bertram F. Linz	1- 5	24
British Imports Ban Difficulties—Dahl M. Duff	1-12	45
Shell's Stanlow Plant	1-12	63
Britain's Bad Guess on Oil-Imports Ban	2- 2	26
British-Ban Deadlock—Bertram F. Linz	2- 9	48
British Embargo Stand—Dahl M. Duff	2- 9	49
Sterling Puzzle—Bertram F. Linz	2-16	68
Britain's Oil Offer—Dahl M. Duff	2-16	69
British-Argentine Trade Is Well Under Expectations	2-16	80
U. K. Ships Servicing Unit	2-16	83
British Ban in Effect	2-23	113
Sterling-Dollar Doubts	3- 2	30
U. K. Equipment Exports	3- 2	39
Expansion to Get Under Way Soon at Grangemouth	3- 2	80
Officials Hoping for Prompt Answer to Dollar-Ban Note	4- 6	49
British Hold Secret Talks on American Produced Oil	4- 6	49
Former ECA Official Suggests Joint Anglo-American Study Group to Advise on Common Oil Problems—Dahl M. Duff	4- 6	54
British Reply on Oil Policy Awaited—Bertram F. Linz	4-13	73
British Double Gasoline Tax, Effect on Use Questionable	4-27	84
Crude Line for Scotland?	4-27	85

	Date	Page
New TEL Facilities	4-27	85
Oil Tops British Expansion	5- 4	77
British Pacts Are Weakened by Two New Oil Agreements	5-18	109
Deadlock Unbroken Over British Sterling Preference	5-18	111
British End Gasoline Rationing, Hopes for Over-All Sterling Settlement Are Raised—Dahl M. Duff and Bertram F. Linz	6- 1	40
Current Refinery-Construction Program Indicates Britain Will Have 400,000-Bbl. Daily Throughput by End of 1952	6- 1	45
British Government Permits Companies ¾-Pence Gasoline Price Increase—Dahl M. Duff	6- 8	40
New British "Offer"	6- 8	41
Exploration Concessions Sought Under New Barbados Law	6-15	85
Redesigning Shell's Heysham Refinery—V. S. Swaminathan	6-29	71
Gulf in Barbados	7- 6	32
British Won't Go Along on Ban of Oil Sales to China Reds	7-13	58
Aramco Arranges for Use of Sterling in Its Operations	7-13	60
Caltex Reaches Agreement With British Government	7-20	60
British Equipment Suppliers Expect Big Gain in Business	8- 3	33
Shell Haven Expands	8- 3	34
Anglo-Iranian Using Infrared Spectrometer to Study Catalyst	8-17	71
Dollar-Sterling Oil Controversy With Britain Quieted, But System Still Curbs Trade—Bertram F. Linz	9- 7	48
Design British Refinery	9- 7	52
Work Begins on British Refinery as Vacuum Merges With Cory Bros.	9-14	74
Britain's Catarole Plant Faces Refinancing Crisis	9-14	76
English Carbon-Black Plant to Begin Operations	9-28	60
Initial Work Starts on New Kent, England Refinery	12-14	68
ECA May Cut Aid Allotment to British Due to U. K. Recovery	12-14	69
Anglo-Iranian's Llandarcy Refinery Expands	12-21	253
Marshall Plan Help to Britain to Be Suspended on December 31	12-28	46
VENEZUELA		
Record Production Rates, Expansion of Refining Capacity, and Discovery of Eight Fields in 1949 in Venezuela	1-12	42
Amuay Bay on Stream	1-19	39
Changed Venezuelan Oil Policy	2- 2	34
Western Venezuelan Test Approaching Depth Record	2- 9	58
Martorano Says Venezuelan Oil Supplements U. S. Output	2-23	124
New Venezuelan Refinery	2-23	126
El Roble Development	2-23	126
Venezuela Refinery Operations Up 21.8 Per Cent Over 1948	3- 2	35
Steep Inch Products Line Being Built From Seacoast to Caracas	3- 2	36
Fewer Rigs Operating at End of January in Venezuela	3- 2	3
Venezuelan Representatives Visit United States in Effort to Counteract Independents' Campaign to Restrict Imports	3- 9	60
Tucupido Stepout Finaled	3-16	65
Venezuelan February Output 145,718 Bbl. Daily Under January	3-23	167
Venezuelan Gas Line	4- 6	56
Depth Record of Creole Wildcat	4- 6	56
Strike Threat in Venezuela	4- 6	56
End of a Mission for Venezuela	4- 6	140
Levy to Advise Venezuela	4-20	146
Drop in Exploration in Venezuela	4-20	146
Deep Test Finds Oil	4-27	85
Puerto La Cruz Refinery on Stream	4-27	85
One Puerto La Cruz Plant Operating, Other Advanced	5- 4	70
Paralyzing Walkout Staged by Oil Workers in Venezuela	5-11	57
Max Ball in Venezuela	5-11	58
Venezuelan Strike Ended	5-18	107
Officials of Venezuela and U. S. See Threat to Tariff	5-18	107
Mene Grande Gets 600-Bbl. Oil Producer in Venezuela	5-18	109
Creole's Operations	5-18	109
Venezuelan Rig Report	5-18	110
Creole First Quarter Better Than Expected, Proudfit Says	5-25	101
Venezuelan Strike Aftermath	5-25	101
Creole-Shell Siburua Water Line Is Coated Inside by New Method—Robert L. Buck	5-25	114
Venezuela, Saudi Arabia Production at New Highs	6-15	84
New Venezuelan Record	6-29	54
Creole Stock Shift	7- 6	32
Products Line Authorized in Western Venezuela	7-13	61
Venezuela, Saudi Arabia Set New Production Records in June	7-20	62
Venezuelan Rig Report for May	7-20	64
Barinas Program Suspended	7-20	64
Venezuela's First Lube-Oil Plant—George Weber	8- 3	31
El Mene Deep Test	8- 3	33
Oil Output Ends Money Difficulties for Ultramar	8-10	52
81-Mile Pipe Line Serves Creole, Shell Refineries	8-10	52
Shell Plans Crude Line in Venezuela	8-17	73
El Roble Plants Proposed in Latin America	8-24	100
Creole Expands Capacity of Venezuelan Gas Plant	8-31	47
Increase Expected Soon in Exploration Activity in Venezuela	9- 7	49
Four Major Venezuelan Companies Pool Search Efforts	9- 7	49
Creole Sets New Production Record in Venezuela	9- 7	50
Advance Work Starts on New Venezuela Line From Maracaibo	9-14	74
Creole's Output Lower	9-14	74
Sinclair's 35,000-Bbl. Puerto La Cruz, Venezuela Plant Will Go on Stream October 1—Dahl M. Duff	9-21	180
Operators Look for Continued Increase in Oil Activity in Venezuela—Dahl M. Duff	11- 2	44
Venezuela "Steep Inch" to Operate in December	12- 7	71
Here's How Socony-Vacuum Conducts Transport in Venezuelan Operations—George F. Kendall	12-14	76
Vast Market Awaits Development of Venezuela's Natural Gas—Robert M. Poe	12-21	228
Creole to Test Its Guanoco Concession	12-21	238
YUGOSLAVIA		
Yugoslavia Another Lost Market—Dahl M. Duff	1-19	37

Maps

	Date	Page
WORLD		
Map Showing Dollar, Sterling, and Other Areas	3-23	165
Map Showing Location of 1949 Crude Production and Refining Capacity	6- 1	28
Map Showing Significant Change in Postwar Pattern of World Oil Distribution	6- 1	45
Outline Map of Part of the Far East	11-16	226
Map Showing Gas Fields, Oil Fields, Refineries, and Oil Pipe Lines	12-21	164
U. S. GENERAL		
Diagram of Magnified Section of Oil-Bearing Sand Showing Partial vs. Complete Recovery	2-16	69
System Map of Transcontinental Gas Pipe Line	5- 4	82
Map Showing Exploratory Drilling in 1949	5-11	70
Map Showing Great Lakes Pipe Line System	5-25	89
Map Showing Products Pipe Line From Salt Lake City to Pasco, Wash.	7-13	67
Map Showing Route of Mid-Valley Pipe Line	7-20	53
Map Showing Rainfall, Unexpected Drought Areas That Affect Oil-Industry Activities, Such as Pipe-Line Construction, Waste Disposal, and Supplies of Cooling and Processing Water	8-17	58
Journal-Guide to Crude Oil: Product Pipe Lines	9-21	Insert
Journal Guide to Natural Gas Pipe Lines	9-21	Insert
Map Showing Tennessee Gas Transmission's Complete System	9-21	179
Map Showing Route Under Construction for Trunk-line Gas Supply Co. From McAllen, Tex., Connecting With Panhandle Pipe Line System at Tuscola, Ill.	9-21	318
Map Showing Route of Texas Eastern Transmission Corp.'s 805-Mile Natural Gas Pipe-Line System, Planned for 1951, From Mississippi to Pennsylvania	12- 7	56
Map Showing Route of Proposed Texas Gulf Coast-to-Pacific Northwest Natural-Gas Line	12-21	146
STATES		
ARIZONA		
Map Showing Pipe-Line System of El Paso Natural Gas Co. and Subsidiaries	9-21	203
Map Showing Natural-Gas Pipe-Line Systems From Texas to California	11- 9	A-54
ARKANSAS		
Map Showing Net Effective Thickness of Hogg Sand, Wesson Field, Ouachita County, Arkansas	4-13	103
CALIFORNIA		
Map Showing Kettleman Hills North Dome Temblor Zone	6-15	93
Map Showing Richfield Trunk Line to Cuyama Field	8-17	64
Map Showing Natural-Gas Pipe-Line Systems From Texas to California	11-9	A-54
Journal Guide to California	11-9	Insert

	Date	Page
CAROLINA, NORTH AND SOUTH		
Route of Plantation Pipe Line Co.'s Existing Line, Showing Route of New Line Which Will Parallel Present System	11- 2	30
EASTERN		
Map Showing the Difference Between Haphazard Water Flooding and Carefully Engineered Five-Spotting in Pennsylvania	3-30	53
Map Showing the Route of the 268-Mile, 26-in. Line From Clendenin, W. Va., to Rockville, Md.	4-13	67
Map Showing the Route of the Proposed Penn-York Products Line	5-25	94
Map Showing Route of the $14,000,000, 25-Mile Transcontinental Natural-Gas Line in New York City	11- 9	52
Map of Central Pennsylvania Showing the Areas of Current Interest	11- 9	58
Map Showing Leidy Gas Pool Area, Clinton County, Pennsylvania (Oriskany Sandstone)	11-23	91
Map of Principal Geologic Structures in North-Central Pennsylvania With Oriskany Sandstone Gas Fields	11-23	92
FLORIDA AND SOUTH GEORGIA		
Index Map of Florida, Giving Approximate Locations of Wells Drilled During 1949	6-22	310
Map of Sunniland Oil Field and Nearby Prospects, Collier County, Florida	6-22	310
Route of Plantation Pipe Line Co.'s Existing Line, Showing Route of New Line Which Will Parallel Present System	11- 2	30
ILLINOIS-INDIANA		
Map Showing Silurian Oil Possibilities	3- 2	48
Map Showing Distribution of Silurian Strata and Location of Known Reefs	3- 2	48
Map Showing Niagaran Reef Occurrences and Sedimentation Belts in Illinois	3- 2	49
Map showing Thickness of Niagaran Strata in Illinois	3- 2	49
Isopachus Map of Benoist Sand	5-25	109
Map Showing Location of Plainville Pool, Indiana	6- 8	35
Map Showing Texas-Illinois Gas Pipe Line to Chicago	6-29	40
KANSAS, NEBRASKA, MISSOURI		
Map Showing Locations of Kansas Water Flood Projects Viewed at Operators' Meeting	6- 1	36
Map Showing Texas-Illinois Gas Pipe Line to Chicago	6-29	40
Map of Lynde, Walter & Darby Water-Flooding Project	6-29	61
Map Showing Long and Narrow Stretches of Bartlesville Sand on Keas Drilling Co.'s Water-Flood Project	7- 6	47
Map of Deep Rock Oil Corp. Water-Flooding Project	7-20	91
LOUISIANA		
Map of Discovery Wells in Louisiana Gulf Coast	1- 5	32
Map Showing Detailed Data on Exploratory Drilling for Southeastern New Mexico, Texas, Louisiana	5-11	71
Map Showing Location of Pure Oil Co.'s Rollover Field Off the Coast of Louisiana to Be Connected With Shore Submarine Gas Pipe Line	6-22	152
Status Report on Offshore Drilling in Louisiana—A. L. Vitter, Jr.	6-22	221
Map Showing Location of Pure Oil Co.'s Rollover Field Off the Coast of Louisiana to Be Connected to Shore With New Submarine Gas Pipe Line	7-21	277
Route of Plantation Pipe Line Co.'s Existing Line, Showing Route of New Line Which Will Parallel Present System	11- 2	30
MISSISSIPPI-ALABAMA		
Map Showing Location Plat, California Co. 1, U.S.D.A. 2, Bude Field, Franklin County, Mississippi	9-14	92
Route of Plantation Pipe Line Co.'s Existing Line, Showing Route of New Line Which Will Parallel Present System	11- 2	30
NEW MEXICO		
Map Showing Detailed Data on Exploratory Drilling for Southeastern New Mexico, Texas, Louisiana	5-11	71
Map Showing General Routes Proposed by Two Chief Present Contenders for Right to Pipe Natural Gas to Pacific Northwest	6-29	47
Map Showing Pipe-Line System of El Paso Natural Gas Co. and Subsidiaries	9-21	203
Map Showing Natural-Gas Pipe-Line Systems From Texas to California	11-9	A-54
NORTHERN		
Map Showing Texas-Illinois Gas Pipe Line to Chicago	6-29	40
OKLAHOMA		
Map Showing South Ceres Pool, Noble County, Oklahoma	4-20	138
Map Showing Texas-Illinois Gas Pipe Line to Chicago	6-29	40
Oil Map of Osage County Showing Oil Pools and Producing Areas	8-24	95
Regional Geographic Map of Oklahoma Showing Location of Ringwood Field, Major County, on the Northwest Limb of the Anadarko Basin	9-14	84
Map Showing Subsurface Structure Contour of Ringwood Field Mapped on Top of the Manning Unconformity	9-14	85
Map Showing Net Effective Saturated Oil Pay Isopachous Contour, Manning Reservoir, Ringwood Field	9-14	86
Map of Ringwood Field Showing Original Boundaries, First Extension, and Proposed New Addition Requested of Oklahoma Corporation Commission	9-28	52
Development Map Showing Location and Status of Wells and Repressuring Projects, Weber Pool, Washington County, Oklahoma	12- 7	78
ROCKY MOUNTAIN AREA		
Map Showing Main Structural Features of Central and Eastern Montana (After C. E. Dobbin, April 1943, A.A.P.G. Bulletin)	5-18	116
Map Showing Main Structural Features of Wyoming (After C. E. Dobbin, April 1943, A.A.P.G. Bulletin)	5-18	117
Map Showing Structural Features of Colorado and Northern New Mexico (After C. E. Dobbin, April 1943, A.A.P.G. Bulletin)	5-18	117
Map Showing Structural Features of Eastern Utah and Northern Arizona	5-18	118
Map Showing Structural Features of Dakotas	5-18	118
Map Showing Generalized Features and Cross-Section Across Western Nebraska	5-18	118
Map of Sussex Field, Johnson County, Wyoming	7- 5	43
Map of General Route of New Crude Line From the Rocky Mountain Area	8-31	37
Map Showing Location of Wildcat Ventures in Nevada and Idaho	12-14	63
TEXAS, GENERAL		
Map Showing Detailed Data on Exploratory Drilling for Southeastern New Mexico, Texas, Louisiana	5-11	71
Map Showing Texas-Illinois Gas Pipe Line to Chicago	6-29	40
Map Showing Route of Humble's New 370-Mile, 18-in. Crude Line—Leigh S. McCaslin, Jr.	6-29	58
EAST TEXAS		
Map Showing Second Sand Reservoir at the Time Water-Flooding Operations Began—Joe's Lake Field, Tyler County, Texas	6-22	240
Map of Second Sand Reservoir Conditions at the Present Time—Joe's Lake Field, Tyler County, Texas	6-22	240
Map of First Sand Reservoir Conditions at the Time Water-Flooding Operations Began—Joe's Lake Field, Tyler County, Texas	6-22	240
Map of First Sand Reservoir Conditions at the Present Time—Joe's Lake Field, Tyler County, Texas	6-22	241
TEXAS GULF COAST		
Map Showing Path of Gulf of Mexico Hurricane, Straight Into the Ohio Oil and Stanolind Offshore Drilling Platforms	2-23	136
Map Showing Deposition of Sediments in Gulf of Mexico	3-16	88
Journal Guide to Gulf Coast Oil Map (Supplement to issue	6-22	
Sand-Completion Map of East Village Mills Field	6-22	203
Map Showing Chemical Resources in Lower Gulf Coast Area	6-22	301
Map Showing Southern Portion of Texas Route of Atlantic Pipe Line Co.'s New 10-in. Southwest Texas Line	9-21	244
Map of Mustang Island Field	11-23	49
Map of Moss Bluff Shallow Piercement-Type Salt Dome of Liberty County, Texas	11-30	45
Structural Contour Map on Top of the Salt at Blue Ridge Piercement-Type Dome, Contour Interval 500 ft.	12-28	53
NORTH TEXAS		
Map of North Central Texas Showing Location of Water-Flooding Projects in July 1949	3-30	54
SOUTHWEST TEXAS		
Map Showing Location of Seaboard and Barnsdall Leases on Wentz Estate	1-19	41
WEST CENTRAL TEXAS		
Map of Area and Cross-Section Through Wells Along Profile A-B, Ft. Chadbourne	8- 3	49
WEST TEXAS		
Map Showing Competitive Conditions in Great Lakes Markets for Alberta vs. West Texas	2-16	74
Map of West Texas Reef Area	3- 9	54
Map Showing 22 Drilling Wells of Pegasus and Meadow Fields Representing at Least $6,000,000 "Going Down the Hole"	4-27	62
Map Showing Subsurface Top of the Reef (C.I. = 100 ft.) and Locations of Pumping Wells and Those Making Water	4-27	65
Map Showing Subsurface Map on Top of Canyon Reef in Scurry Reef Fields of Borden-Scurry-Kent Counties, West Texas	4-27	131
Map Showing Barnsdall-Seaboard New Canyon Reef Pool in Western Portion of Wentz 27,000-Acre Block	5- 4	61

	Date	Page
Map Showing Warren Wildcat Reef Area 2 Miles Northwest, Between the Castleman and Progress Discoveries	5- 4	61
Ownership Map of Part of Mildand County, Texas, Showing Location of Magnolia's Acreage and the Discovery Well, the 2 Roy Parks	6-22	150
Map Showing Drilling Concentration 15 Miles Southeast of Midland, Tex.	7-13	97
Map of North Cowden Field, Andrews and Ector Counties, Texas. The Surface Formational Contours on Top of Lime—Total Structural Relief of Production is Over 800 ft.	7-20	75
Map Showing Area North of Cogdell Field	8- 3	27
Map Showing Pipe-Line System of El Paso Natural Gas Co. and Subsidiaries	9-21	203
Map Showing Southern Portion of Texas Route of Atlantic Pipe Line Co.'s 10-in. Southwest Texas Line	9-21	244
"Place Fix" Map Showing Location of Central Basin Platform in West Texas-Southeastern New Mexico	10-19	123
Map of the Todd Crinoidal Unit Showing Productive Limits, Outline of Unit Area, Approximate Water Front, and Lime Structure	10-26	96
Map Showing Natural-Gas Pipe-Line Systems From Texas to California	11- 9	A-54
Map of Benedum Field, Upton County, Texas, Gathering System of Plymouth Oil Co.	11-23	66
Structural Contour Map on Top of Pennsylvanian Canyon Reef, Scurry Fields	11-23	89
Map Showing Area Where Over 60 Rigs Are Active in Midland County	11-23	117

FOREIGN

ALASKA

Map Showing Search for Oil in Alaska and Naval Petroleum Reserve Area	3-30	74

ARGENTINA

Map Showing Oil Fields, Oil and Gas Pipe Lines, and Refineries	12-21	182

BOLIVIA

Map Showing Location of the Refineries at Sucre and Cochabamba	11- 9	69

CANADA

Map Showing Competitive Conditions in Great Lakes Markets for Alberta vs. West Texas	2-16	74
Map of Alberta, Showing Area of Difficult Terrain	4-27	114
Map Showing Cross-Section Study (Modified Somewhat for Clarity) Modeled After an East-West Seismic Cross-Section Through Redwater Field	4-27	114
Map Showing Exploratory Drilling in 1949 in Southern Provinces of Canada	5-11	70
Map Showing Parcels Offered for Sale May 11, the Results of Previous Sales of Crown Reserve Lands, and Producing Wells and Dry Holes in Redwater Field	5-18	98
Map of Alberta Province Showing Location of Producing Gas Fields	5-25	91
Map of Stettler Area—Well-Completion Data	7-20	71
Map of Stettler Field, Wells, Leases—Typical Subsurface Profile	7-20	71
Map Showing Areas of Sediments Favorable for Oil Prospecting	8- 3	54
Map Showing Surface Geology Western Canadian Plains	8- 3	54
Map Showing Generalized Structure South Part Western Canada Basin	8- 3	55
Map Showing Gas Fields and Discoveries Oil Fields in Alberta	8- 3	57
Map Showing Edmonton-Superior Pipe Line	8- 3	57
Map Showing Gas Fields, Oil Fields, Refineries, Gas, and Oil Pipe Lines in Province of Alberta	12-21	169
Map Showing Water Injection Project—Turner Valley	12-21	247

COLOMBIA

Map Showing Oil Fields, Pipe Lines, Refineries	12-21	174

EAST INDIES

Map Showing Pools, Pipe Lines, Refineries, and Bulk Terminals	12-21	162

ECUADOR

Map Showing Oil Fields, Pipe Lines, and Refineries	12-21	178
Map of Western Ecuador	12-21	270
Map of Santa Elena Peninsula, Ecuador	12-21	271

FRANCE

Map of Southern France Showing Location of Concessions	5-18	110
Map Showing Societe Nationale des Petroles d'Aquitaine's Lacq Field Is Located South of Bordeaux and Near the Spanish Border	12-21	283

GERMANY

Map of Northwestern Germany Showing New Discoveries Made Last Year and Existing Fields	5-11	56

INDIA AND PAKISTAN

Map of Pakistan and Location of the Six Areas: Punjab, North West Frontier, Eastern Baluchistan, Western Baluchistan, Sind, Indus Valley, and Eastern Bengal	10-12	108

ITALY

Map of Upper Po Valley Showing Location of Producing Fields and Pipe Lines Serving Them	5-25	99
Map Showing A.G.I.P. Gas Pipe Line System in the Po Valley	12-21	281

MEXICO

Map Showing Oil and Gas Fields, Oil and Gas Pipe Lines, and Refineries	12-21	171
Map of the Region Lying Just West of Yucatan Peninsula, Showing Locations of Tortuguero and Xicalango Operations	12-21	261

MIDDLE EAST

Map Showing Abqaiq Field's 65 Wells, of Which 45 Are Producing 450,000 Bbl. Daily	8- 3	43
Map Showing Producing Fields and Pipe Lines of Arabian American Oil Co.	8- 3	43
Map of Levantine Coastal Area, Showing Route of Major Pipe Lines Stretching East to Haditha and Kirkuk	8-10	49
Map Showing Location of Arabian American Oil Co.'s Producing Fields and Connecting Pipe Lines	12- 7	68
Map of Middle East Showing Oil Fields, Pipe Lines, and Refineries	12-21	155

PERU

Map Showing Oil Fields, Pipe Lines, and Refineries	12-21	182

RUSSIA

Map of Soviet Oil and Gas Industry	12-21	214

TRINIDAD

Map of Trinidad Showing Areas of Exploitation, Miocene and Oligocene Formations	12-21	297

VENEZUELA

Map Showing Route of the Unique Big Inch (30 and 34-in.) Internally Coated Water Line Which Serves the New Western Venezuela Refineries of Creole and Shell	5-25	114
Map Showing Route of 81-Mile Water Line Built by Creole, Shell, and Venezuelan Government	8-10	52
Map Showing Oil Fields, Pipe Lines, Refineries, and Towns	12-21	173
Map Showing Trunk Line System, 80 Miles of Distribution Lines Which Are to Be Installed to Serve Industrial Areas in Addition to Present Line	12-21	228
Index Map of Northeastern Venezuela	12-21	238

Personalities

	Date	Page
DRILLING		
Frank J. Whitely, Vice President, B.B.M. Drilling Co.	6-22	162
PRODUCTION		
Harold Decker, President, Houston Oil Co.	1-12	47
G. Frick Poe, General Superintendent, Ohio Oil Co.	2-16	85
M. L. Haider, Gen. Mgr., Producing Dept., Imperial Oil, Ltd.	5- 4	78
Ben C. Belt, Vice President, Gulf Oil Corp., Houston	6- 1	49
P. H. Bohart, Vice President, Gulf Oil Corp., Tulsa	6- 1	49
F. J. Adams, Vice President, Gulf Oil Corp., Ft. Worth	6- 1	49
H. S. Gibson, Managing Director, Iraq Petroleum Co., Ltd.	7- 6	34
Richard K. Van Sickle, Independent Producer	8-24	103
Frank Phillips, Oil Producer	8-31	38
John R. White, Vice President, Imperial Oil, Ltd.	10- 5	130
Dr. Paul D. Foote, Executive Vice President, Gulf Oil Corp.	10-12	77
Clarence S. Bessemyer, Executive Vice President, General Petroleum Corp.	11- 9	74
REFINING		
R. G. Follis, Vice Chairman, Standard Oil Co. of California	1- 5	39
E. M. Dons, General Superintendent, Mid-Continent Petroleum Corp.	1-26	170
William L. (Billy) Connelly, Director and Chairman, Sinclair Oil & Gas Co.	2- 2	40
Carl A. Houy, General Superintendent of Crude-Oil Production, Deep Rock Oil Corp.	3- 2	40
Clark S. Teitsworth, Director of Manufacturing, Socony-Vacuum Oil Co., Inc.	3-16	66
Harry A. Jarvis, Mgr., Refining Department, Creole Petroleum Corp.	3-23	168
Eric W. Luster, Vice President, Standard Oil Development Co.	4- 6	59
C. W. Cooper, Manager, Pure Oil Co.	5-11	63
A. F. Endres, Assistant General Superintendent, Standard Oil Co. (Ind.)	5-18	113
H. W. Fisher, Coordinator, Standard Oil Co. (N.J.)	6- 8	44
N. J. Gothard, Assistant Chief Chemist, Sinclair Refining Co.	6-29	55
W. W. Keeler, Vice President Refining Dept., Phillips Petroleum Co.	7-20	65
Michael H. Nolan, Superintendent, Sinclair Refining Co.	8-10	53
J. S. Leach, Executive Vice President, The Texas Co.	8-17	75
William T. Cravens, General Superintendent, Cities Service Oil Co.	9- 7	55
R. W. Thomas, Vice President of Research and Development, Phillips Petroleum Co.	9-14	80
J. R. Eiffe, General Superintendent, Esso Standard Oil Co.	9-21	184
H. G. Mangelsdorf, Assistant General Manager, Esso Standard Oil Co.	9-21	184
Robert G. Clark, Director, Utah Oil Refining Co.	11-23	56
Roy J. Diwoky, Executive Vice President, Pan-Am Southern Corp.	11-30	56
Frank M. Dawson, Vice President, Carthage Hydrocol, Inc.	12- 7	73
W. G. Copeland, Superintendent, The Texas Co.	12-14	71
Harold M. (Hal) Davidson, manager of manufacturing department, Standard-Vacuum Oil Co.	12-21	150
M. P. L. Love, manager manufacturing-research department, Shell Oil Co.	12-28	49
PIPE LINE		
George H. Supple, Vice President, General Petroleum Corp.	1-19	46
T. S. Johnston, Vice President, Interprovincial Pipe Line Co.	3- 9	62
A. P. Kramer, Assistant General Superintendent, Great Lakes Pipe Line Co.	3-30	77
Graydon A. Scrafford, Assistant General Manager, Buckeye Pipe Line Co.	4-13	73
William J. Wilkins, Head of Transportation Pipe Line Dept., Gulf Oil Corp.	4-20	148
W. L. Kygar, President, Continental Pipe Line Co.	7-27	166
Roy J. Tibbets, Vice President Pipe Lines, Sinclair Refining Co.	9-28	62
O. Q. Lomax, President, Humble Pipe Line Co.	10-19	75
Volney H. Kyle, Jr., Vice President and Manager of Operations, Michigan-Wisconsin Pipe Line Co.	11-16	196
GAS-GASOLINE		
Dr. Donald L. Katz, Professor Chemical Engineering, University of Michigan	4-27	69
Paul Kayser, President, El Paso Natural Gas Co.	5-25	103
F. M. Banks, President, Southern California Gas Co.	8- 3	36
EXPLORATION		
Frank Ittner, Vice President, Superior Oil Co.	2- 9	60
George M. Clement, Geologist, The Texas Co.	2-23	131
Lon D. Cartwright, Jr., Chief Geologist, Union Oil Co. of California	4-27	86
P. C. Ingalls, Geologist, Joins Journal	6-22	157
J. H. Todd, Superintendent, California Co.	7-13	62
A. K. Tyson, Vice President and Director, American Republics Corp.	8-31	49
Alan James Galloway, Vice President in Charge of Exploration and Production, Shell Oil Co.	11- 2	47
GENERAL		
Edwin L. Smith, Vice President, Superior Oil Co.	2- 9	60
Sinclair Steps Down—Dahl M. Duff	6- 1	37
L. O. Crockett, Mgr., Mfg. Dept., Gulf Oil Corp.	6-15	87
Joseph A. Kornfeld, District Editor, The Oil and Gas Journal	9-14	66
Jake L. Hamon, President, Mid-Continent Oil and Gas Association	10-26	70
M. W. Boyer, General Manager, Atomic Energy Commission	11- 2	36

Men Who Wrote for the Journal During 1950

Authors

	Date	Page
ABENDROTH, G. F., ALLEN, T. O., and HUBER, T. A.		
Average Completion Cost Is 20 Per Cent of Total Well Cost	11-16	234
ABRAHAM, W. E. V.		
What's the Present Picture on Oil in the Far East?	11-16	226
ALEXANDER, FRANK C., JR.		
Microwave Shoran (A.A.P.G. Abs.)	4-27	120
ALFRED, J. K.		
International Pipe-Coating Techniques	11-16	266
ALLEN, H. E., BEAL, F. M., and CURTIS, R. C.		
Pumping Deep Wells	5-18	134
ALLEN, T. O., ABENDROTH, G. F., and HUBER, T. A.		
Average Completion Cost Is 20 Per Cent of Total Well Cost	11-16	234
AMES, C. B.		
Design of Gas-Compressor Stations and Dehydration Plants	5- 4	86
ANDRAULT, J.		
SGHP's New Dunkirk Refinery	12-21	242
ANDRESEN, KURT H., and GARDNER, F. T.		
Requirements of Subsurface Injection Water in Oil Production	9- 7	72
ARIES, ROBERT S., and COPULSKY, WILLIAM		
Use of Olefins for Chemical Production—1940-1950	7- 6	54
ARMSTRONG, EDWARD R.		
Sun's Seadrome for Offshore Drilling	6-22	192
ARMSTRONG, E. N.		
Measurement and Pressure Control of Natural Gas on the Transco System	5- 4	122
ARMSTRONG, TED A.		
Special A.A.P.G. Committee Concludes Number of Students Studying Geology Should Be Halved	5-18	93
ARMSTRONG, TED A., and BARNES, KENNETH B.		
Mid-Continent A.P.I. Members Hear Reports on Plastic Pipe, Well Density, High-Pressure Injection, Other Subjects	4- 6	50
ARTHUR, C. E., WILLETT, JR., F. R., and WATKINS, J. WADE		
Conditioning Water for Subsurface Injection	8-17	120
ATCHISON, T. C., ROUGH, R. L., OBERT, L., DUVALL, W. I., and GRANT, B. F.		
Research on Shooting Oil and Gas Wells	6- 1	65
AUGSBURGER, C. H.		
Gulf Coast Pilot Flood in 11,000-Ft. Gas-Condensate Reservoir	6-22	210
AYERS, BENJAMIN K., JR.		
Stanolind Platform Also Tested in Gulf of Mexico Hurricane	2-23	150
BACON, T. S.		
Automatic Compressor Stations	1-12	61
BACHMAN, WILLIAM S.		
Fatigue Testing and Development of Drill Pipe-to-Tool Joint Connections	10-19	109
BADEN, W. A.		
New Problems Have Accompanied L.P.G. Expansion	4-20	154
BANKS, J. E.		
Wildcatting in Florida	6-22	252
BARGER, H. S.		
Benoist Water Flood Patoka, Illinois, Pool	5-25	109
BARGHOORN, E. S.		
Age and Environment: A Survey of North American Tertiary Floras in Relation to Paleoecology (Abs.)	4-27	178
BARKIS, BRUCE		
Time Factor in Cementing	1-12	74
BARNES, BRUNNER C.		
New Mamou Field Process Plant Has Facilities for 7,000 M.c.f.	6-22	189
BARNES, KENNETH B.		
Estimate of 1950 Artificial Lift Installations by States	1-26	242
Test Model of Rotary-Percussion Drill, Found Successful in Shop Experiments	3- 9	49
Gas Deviation Methods	4-13	69
Cleveland A.P.I. Meeting Told too Much Government Will Cause Trouble for Industry in Future	5- 4	57
More Reefs; Barnsdall Hits in Kent; Warren Opens Scurry Pool	5- 4	61
Water-Flood Optimum in Mid-Continent Area	6- 1	36
Wichita's Trial of Propane-Powered Buses Points Up Trend	8-10	41
Osage Revival Comes with Modern Well-Completion and Water-Flood Techniques	8-24	95
New Uses for L.P.G.	9-14	69
Canada's Entire Economy Being Changed by Alberta's Development; Hearings Under Way to Assess Gas Potentials	11-16	192
2,100-Mile Gas Line With Capacity of 350,000 M.c.f. Daily Is Planned From Texas Gulf Coast to Pacific Northwest	12-21	146
BARNES, KENNETH B., and ARMSTRONG, TED		
Mid-Continent A.P.I. Members Hear Reports on Plastic Pipe, Well Density, High-Pressure Injection, Other Subjects	4- 6	50
BARNES, KENNETH B., and CARLSON, ROY F.		
Scurry Analysis	4-27	64
Gas-Liquids Problems	4-27	69
BARTLEY, J. H., and COX, R. T.		
Types of Oil and Gas Traps in West Texas and Southeast New Mexico (A.A.P.G. Abs.)	4-27	119
BARTRAM, JOHN G.		
Why Do Many Geologists and Engineers Disagree on Well Spacing?	7-27	216
BASSINGER, ROSS		
Rotary Percussion Drilling . . . a Review and a Prediction	10-12	111
BATES, W. F.		
Use of Tubing as Drill Pipe	6- 1	54
BATTLE, JACK L., and CHENEY, PRESTON E.		
Lime-Base Muds . . . A Progress Report	3-16	81
BEAL, F. M., CURTIS, R. C., and ALLEN, H. E.		
Pumping Deep Wells	5-18	134
BERNARD, GEORGE G.		
Conditioning Water for Subsurface Injection	10-12	101
BEST, J. C., SKELTON, W. E., and GROSS, H. H.		
Furfural Refines Gas Oil	3-23	211
BEST, W. C.		
Electrical Equipment Installations for Pumping Smackover Field, Arkansas	9- 7	64
BIELSTEIN, W. J., and CANNON, GEORGE E.		
Factors Affecting Rate of Penetration of Rock Bits	3-30	102
BLADE, O. C.		
1950 Diesel-Fuel Survey	12-28	81
BLOHM, C. L., and FRAZIER, H. D.		
Chemical Deterioration of Cooling-Tower Lumber	3-16	72
BLUMER, A. F.		
How to Control Welding Quality in a Petroleum Refinery	10-19	94
BODLE, W. W., SPANGLER, C. V., and GRANQUIST, W. T.		
New, Safe, Practical Storage and Transportation Method for Light Hydrocarbons	4-20	170
BOGEN, J. S., and HAENSEL, V.		
Platformate—Properties and Performance (A.P.I. Abs.)	5-25	151
BOND, R. K., and HOWELL, A. P.		
New Method Developed to Identify Interfaces in Product Pipe Lines	7-13	66
BOOTH, BARRETT E., and HERVEY, O. S.		
East Village Mills Field Currently a Gulf Coast Hot Spot	6-22	200
BORN, W. T.		
Air-Blast Symposium (A.A.P.G. Abs.)	4-27	120
BORTHWICK, JAMES F., JR.		
Mississippi Oil and Gas Development	6-22	260
BOX, W. T.		
Jet Process of Open-Hole Shooting	6-29	84
BOYD, W. L., REID, L. S., and McCARTHY, EUGENE L.		
Water-Vapor Content of Essentially Nitrogen-Free Natural Gas Saturated at Various Conditions of Temperature and Pressure	1- 5	59
BRESTON, J. N.		
Conditioning Water for Secondary Oil Recovery in Appalachian Fields	8-24	159
BRODIE, GERSON H.		
Structure-Forming Role of Limestone Reefs in Eastern Platform Area of West Texas (A.A.P.G. Abs.)	4-27	118
BROWN, C. K., and MASON, W. D., JR.		
Central Control of a Gulf Coast Pressure-Maintenance Project	6-22	206

	Date	Page
BROWN, KENNETH M., and KURTIS, SOMA		
Neutralization of Spent Caustic with Flue Gas	7-20	81
BROWNSCOMBE, E. R., SLOBOD, R. L., and CAUDLE, B. H.		
Laboratory Determination of Relative Permeability (Part 1)	2- 9	68
Laboratory Determination of Relative Permeability (Part 2)	2-16	98
BUCHAN, R. C.		
Corrosion in Condensate and in High-Pressure Sweet-Oil Wells (N.A.C.E. Abs.)	4-27	192
BUCHAN, R. C., SULLIVAN, R. J., WILLIAMS, MILTON, and SPAIN, H. H.		
Dehydration of Natural Gas	4- 6	74
BUCK, ROBERT L.		
Creole-Shell Siburua Water Line Is Coated Inside by New Method	5-25	114
BURNS, D. L.		
Corrosion Experienced in a New Crude Distillation Unit (N.A.C.E. Abs.)	4-27	190
BUSH, R. E.		
Porosities Can Be Obtained from Radioactivity Logs in West Texas	4-27	153
BUTLER, JR., C. A., and SUTTER, R. C.		
Pump Stuffing Box for Obnoxious or Inflammable Liquids	8-17	117
BYRNE, T. J., and JENKINS, F. M.		
Maintenance of a Fluid Cat. Cracking Unit	3-23	275
CALHOUN, JOHN C., JR.		
Engineering Fundamentals		
393. Flow Capacities of Wells	1- 5	75
394. Pressure Parting of Formations	1-12	85
395. Change in Well Capacity With Permeability	2- 2	73
396. Changing Well Capacity by Fluid Saturation Change	3-16	113
397. Change of Well Capacity With Filtration	3-23	349
398. Change in Gas Flow With Pressure	3-30	125
399. Permeability; Clay Content	4- 6	95
400. Sources of Reservoir Data	4-13	115
401. Coring and Sampling	4-20	261
402. Coring to Obtain Fluid Saturations	4-27	205
403. Permeability, Porosity Variations	5- 4	155
404. Histograms of Permeability	5-11	105
405. Permeability Distribution Arrangements	5-25	163
406. Comparison of Permeability Distributions	6- 1	85
407. Permeability Capacity Distribution	6- 8	87
408. Porosity Variations	6-15	123
409. Core Data	6-29	91
410. Performance of Parallel Reservoirs	7- 6	71
411. Heterogeneous Solution-Gas-Drive Reservoir	7-13	103
412. Solution-Gas-Drive Performance and Oil Viscosity	7-20	111
413. Variations in Field Relative Permeability Curves	7-27	339
414. Case Histories and K_g/K_o Curves	8-24	179
415. The Water Transition Zone	8-31	89
416. Resistivity Change Through a Water Transition Zone	9- 7	99
417. Gravity Drainage	9-14	131
418. Effect of Gravity Drainage	9-21	371
419. Further Evidences of Gravity Control	9-28	105
420. Gravity Drainage and Capillarity	10-12	123
421. Estimation of Effect of Gas Cap or Gas Reinjection	10-19	129
422. Gas-Cap Expansion and Calculation	10-26	117
423. Summary of Gas-Drive Predictions	11- 2	97
424. Drainage Across a Reservoir	11- 9	179
425. Reservoir Water	11-16	367
426. Water-Oil Ratios	11-23	97
427. Water Encroachment	11-30	91
428. Estimation of Water Influx	12- 7	113
429. Variations of Material Balance	12-21	335
430. Gas and Water Coning	12-28	87
CALLAHAN, M. C.		
How Gulf Pipe Line Locates "Hot Spots" on Crude-Oil Lines	9-21	312
CAMP, E. Q., and PHILLIPS, CECIL		
Pilot Unit Studies on Filtration of Refinery Emulsions and Separator Sediment	2-23	214
CAMPBELL, FRANCIS F.		
Fort Cobb Anticline—A Geophysical Case History (S.E.G. Abs.)	4-27	120
CANNON, GEORGE E., and BIELSTEIN, W. J.		
Factors Affecting Rate of Penetration of Rock Bits	3-30	102
CAPPEL, C. GLENN		
Offshore Drilling Platforms	2-23	142
CARLSON, ROY F.		
Increased Rotary-Rig Efficiency Shown by 1949 Hole Figures	1-26	204
New Medium Rig Features Mobile Console Control Unit	2-16	90
A.P.I. Decides Local Bodies Should Initiate, Develop Projects	3- 9	52
A.P.I. Fights Statism	3-16	52
Texas Proration Protest	3-23	155
Water-Flood Discussion by North Texas Oil Men	3-30	53
Elk City Development Proceeding at Active Pace	4- 6	66
Gas-Liquids Problem	4-20	140
New Sun Plant Serves Five Southwest Texas Oil Fields	4-20	174
Automatic Weight Control	4-27	170
Gas-Liquids Forum at N.G.A.A.	5- 4	60
Automatic Lubricators in Flow-Meter Service	5-11	100
Improved Compressor Operated by Tennessee Gas Transmission at Louisiana Station	5-18	124
Company Executives Tell Texas Railroad Commission Little Change Expected in Present Imports Level	5-25	81
Extra Producing Day in Texas	5-25	97
Shot Holes Drilled With Air Avoid Need for Water	6-22	151
New Remote-Control Rig	6-29	74
Dozen Rigs Now Running in Tex Harvey Field	7-13	97
Fort Chadbourne Field Scene of Active Drilling Program in West Texas	8- 3	48
Pegasus Drilling	8-17	80
Use of Solid Explosives in West Texas	8-31	62
Sholem Alechem Gasoline Plant Processing 30 Million Cubic Feet Per Day	9- 7	60
New Portable Drilling Mast Features Operational Visibility, Clear Floor Space, and Unique Method of Raising and Securing Mast	10- 5	190
Hawkins Defense of Oil Highlights Permian Basin Show	10-26	62
Todd Deep Crinoidal Unit to Get Secondary-Recovery Facilities	10-26	94
Plymouth's Operations at Benedum	11-16	66
Competing With Persian Gulf Oil on World and Domestic Markets or in Battle Is Challenge Facing Texas Oil Men, Thompson Says	12- 7	59
CARLSON, ROY F., and BARNES, KENNETH B.		
Scurry Analysis	4-27	64
Gas-Liquids Problem	4-27	60
Lost-Circulation Materials and Mud Additives	12-28	64
CARLSON, ROY F., and HOOT, CARL F.		
Scurry Summary	3- 9	54
New Midland Field	6-22	150
Kent County Takes West Texas Spotlight as Pennsylvanian Lime Discoveries Hint Reef Formations	8- 3	27
CARMICHAEL, J. T.		
Brewster's New Rig Designed for 15,000-Ft. Plus Drilling	8-24	152
CARR, F. F., and REED, J. E.		
Effect of Temperature, Pressure, Standoff Upon Perfo-Jet Penetration	8- 3	69
CASPER, JOHN C.		
Business Forecast for 1950	1- 5	31
Crude Production Off 468,000 Bbl. Daily From 1948 High	1-26	188
Refining Record Better Than All-Industries Average in 1949	1-26	200
Light-Hydrocarbon Production Sets Another All-Time Record	1-26	202
Little Change in Total Stocks, Compared With 1949	2- 9	47
Oil vs. Coal	2-16	73
Petroleum Refining Maintains High Degree of Stability, Despite Shifting Product Demands	3-23	292
Storage Problems Change	4- 6	52
Plant Production of L.P.G. Soars Above That of Natural Gasoline	4-20	185
Natural Gas Only Segment of Industry Still Facing an Unsatisfied Demand	5- 4	136
Rising Demand	6-15	72
Operators Foresee New All-Time Drilling Record	7-27	170
Light Products Up 14.1 Per Cent Over First Half of 1949	7-27	186
High Octane for July	8- 3	24
Current Figures on Resid Supply and Demand Indicate Shortage	8-31	41
Bureau of Mines Forecast for Last Half of 1950 Revised	9- 7	41
Octane Ratings Continue to Climb in Motor Gasoline During the Third Quarter of 1950 Indicating No Drain for Military Use	10-27	60
Opinions Differ on the Desirable Crude-Stock Level, But the Estimate Has Gone Down as Production and Refinery Runs Increased	11- 9	61
Gas Transmission to the East Increased 34 Per Cent During 1949	11-23	103
CAUDLE, B. H., SLOBOD, R. L., and BROWNSCOMBE, E. R.		
Laboratory Determination of Relative Permeability (Part 1)	2- 9	68
Laboratory Determination of Relative Permeability (Part 2)	2-16	98
CHENEY, PRESTON E., and BATTLE, JACK L.		
Lime-Base Muds . . . A Progress Report	3-16	81

	Date	Page
CHILSON, FRANK H.		
River Crossings on the Transcontinental System	5- 4	105
CHRISTIANSON, E. G.		
Progress Report on Weeks Island	6-22	198
CLAASSEN, L. L., and LUTZ, H. A.		
Modern Light-Oil Refinery Completed	8-24	110
CLAUDET, A. P., and SMITH, NEAL J.		
New Method for Measuring Seismic Velocities	9-14	92
CLAYTON, NEAL		
Geology and Geophysics of North Snyder Area, Scurry County, Texas (A.A.P.G. Abs.)	4-27	118
CLEVENGER, O. L., and McELHANNON, W. A.		
New Device Perfected for Lighting Pilot Light on Elevated Flare Stacks	3-30	91
CLINE, HOWARD L.		
Developments in Compressor-Station Design	9-21	227
CLUTE, H. W.		
Industry Should Seek to Broaden Uses of Products	4-20	156
COLEMAN, J. RALPH and GILLESPIE, BART W.		
Mexican American Completes 18 Months of Operations	12-21	261
CONNOR, J. P., and JEWELL, J. W., JR.		
Economics of Petroleum Coking	11-23	64
CONNORS, J. S., and MILLER, A. J.		
Operating Problems Related to Gas Treating	2- 2	57
COOK, F. V.		
Crankcase Explosions	11-16	291
COOK, J. M., KILGREN, E. W., and McCOLLUM, J. E.		
Levelland Gasoline Plant	5-18	119
COPULSKY, WILLIAM, and ARIES, ROBERT S.		
Use of Olefins for Chemical Production—1940-1950	7- 6	54
COWLES, JAMES R.		
Surveying Pipe Lines for Reconditioning Data Using Surface Potentials	9-21	270
CRAWFORD, F. W., and WHERRY, T. C.		
Continuous Analysis and Control of Process Stream Compositions With Automatic Infrared Analyzers	3-23	272
CRENSHAW, W. H., and MURRAY, H. D.		
Developments in Corrosion Prevention in West Texas	4-27	166
CROOKSHANK, DR. H.		
Much Geological and Drilling Work Remains in Search for Oil in Pakistan	10-12	108
CROSS, AUREAL T.		
Paleobotanical Criteria Applicable to Certain Devonian-Mississippian Black Shales (Abs.)	4-27	178
CRUTHIRDS, A. V., JONES, W. C., and SEYFRIED, W. D.		
Semimicrofractionation by Means of Spinner Columns	2-16	117
CUNNINGHAM, L. J.		
How Northern Natural Achieves High-Quality Welds	9-21	343
CURFMAN, L. W.		
Gas Transmission-Line Maintenance	11-30	84
CURTIS, R. C., BEAL, F. M., and ALLEN, H. E.		
Pumping Deep Wells	5-18	134
DAVIDSON, WALTER H.		
Pipe-Laying Methods of Transcontinental	5- 4	90
DAVIS, C. M., PROF.		
New Insert-Type Oil-Well Pumping Undergoing Tests	2-16	108
DAXON, JOHN E., and FILSON, ROGER		
Job Design	5-25	106
DeARMOND, POLLY		
Exploration Drilling Reaches New All-Time High Records	1-26	180
20,000-Ft. Goal Reached; Also New Producing Depth Record Set	1-26	182
Two-Third of 1949 Completions Successful in Oil and Gas Research	1-26	391
February Gains 436 Completions; Footage Up 2 Million Feet	3-30	168
Number of Well Completions and Footage Reach New Peak for Year	4-27	243
Current Tempo of Exploratory Drilling Indicates 1950 Will Chalk Up Another Record	6-29	37
20,258 Wells Finaled First Half to Set New All-Time Peak	7-27	174
June Completions and Footage Set New Record for Year	7-27	377
Wildcat May Give Oregon Its First Production	9-14	67
Maryland Gas Discovery Spurs Deer Park Structure Activity	11-16	195
Figures for 10 Months Indicate Fulfillment of Year's Forecast	11-30	117
Nevada's Deepest Test Completed Dry at 10,314 ft., But Gives Valuable Geologic Data; Idaho Activity Increasing	12-14	63
1950 Looms As Best Drilling Year in the Industry's History	12-28	122

	Date	Page
DECKER, WILLIAM H.		
Economics of Power Generation at Sinclair's East Chicago Refinery	3-23	232
DEEGAN, CHARLES J.		
37,414 Wells, 138 Million Feet Predicted for 1950 Drilling	1-26	174
Two Per Cent of Fields Account for 60 Per Cent of Oil Found	1-26	184
Proven Reserves of Both Gas and Liquid Show Good Gains	1-26	190
Cheap, Fast Electric Logs	2- 9	76
Two-Dollar Oil in Alberta Would Mean Competition for West Texas Oil in Great Lakes Marketing Area	2-16	73
New Logging Method	3- 2	23
Reserves Are Up	3-16	56
Offshore Seismograph Work With a Single Boat	4-13	82
Nearly 4,000 Exploration Scientists Gather to Compare Notes	4-27	106
Third Largest "Oil State"	4-27	128
Canadian Pipe-Line Policy	5-18	99
Reserves Aplenty in Alberta	5-25	91
Canadian Bush Country and Its Demands on Geophysical Equipment	6-15	90
DEETER, WENDELL F.		
Propylene Polymerization for Motor-Gasoline Production	3-23	252
DEMPSEY, H. B.		
The Plow That Pays	9-21	316
DENT, G. M.		
Plant Supervisors Administer Effective Safety Program at Pan American Refinery	3-23	246
de WITTE, LEENDERT DR.		
Resistivity and Saturation Distribution in Invaded Zones of Porous Formations	7-27	246
Resistivities and Fluid Contents of Porous Rocks	8-24	120
DOBRIN, MILTON B.		
Dispersion in Seismic Surface Waves (A.A.P.G. Abs.)	4-27	120
DOH, C. A.		
Practical Application of MicroLogging in the Northeastern United States	12-14	80
DOLL, H. G.		
The Microlog	3- 2	62
DOMKE, C. J., MOORE, G. T., and DUCKWORTH, J. B.		
Road vs. Laboratory Knock Ratings	5- 4	143
DOREMUS, E. P., and DOREMUS, G. L.		
Cathodic Protection of 14 Offshore Drilling Platforms (N.A.C.E. Abs.)	4-27	192
Cathodic Protection Goes Offshore	6-22	222
DOUGAN, C. W., and LOW, C. H.		
The Properties of Lost-Circulation Materials	9- 7	82
DOUGHERTY, WILLIAM F., HARRIS, LEON T., POLLARD, ROBERT W., and PFARR, JOHN S.		
Maintenance in a Small Refinery	5-18	145
DRAUGHON, C. R., JR., and McNEIL, E. B.		
Cathodic Protection for Open-Box-Type Coolers	6- 1	76
DUCKWORTH, J. B., MOORE, G. T., and DOMKE, C. J.		
Road vs. Laboratory Knock Ratings	5- 4	143
DUFF, DAHL M.		
Natural Gas in East Coast Area Challenges Supremacy of Fuel Oil, Coal	1- 5	26
Non-British Oil Companies Alarmed Over Effects of Imports Ban	1- 5	36
Peru's Petroleum Law Found Favorable by United States Companies	1-12	41
Yugoslavia Another Lost Market	1-19	37
New Colombian Oil Law	1-19	38
World Production Figures	1-26	168
Foreign Production Gains, But World Total Down in 1949	1-26	205
Natural Gas Turns in Another Record-Breaking Performance	1-26	207
Philippine Oil Law	2- 2	36
British Embargo Stand	2- 9	49
Foreign Concession Contracts	2- 9	56
Britain's Oil Offer	2-16	69
Firm Crude-Oil Prices	2-16	73
A.I.M.E. Members Hear 290 Technical Papers	2-16	76
Wildcatting Decline in Colombia; Production at All-Time High	2-16	80
Report on Reserves—A.I.M.E.	2-23	123
Viewpoints of Management, Research, Engineering Given in A.I.M.E. Forum	2-23	127
Herold Sees Limited Optimism in Oil Industry	3- 9	48
Sinclair's Pensions	3-16	55
France Wants Iraq Line	3-16	62
Struggle Between Sterling Oil and Dollar Oil Now a Major Factor	3-23	165
World Production in January	3-23	166
Coal-Strike Results in Relation to Oil Industry	3-30	60
Former ECA Official Suggests Joint Anglo-American Study Group to Advise on Common Oil Problems	4- 6	54

	Date	Page
Commercial Use of Military's New Heavy-Duty Lubricating Oil Is Criticized at N.P.A. Meeting	4-20	141
Jersey Standard, Anglo-Egyptian, Socony-Vacuum Meet Obstacles in Egypt	4-20	145
Record Gasoline Taxes	4-27	73
Oil-Heat Outlook	4-27	74
February Foreign Production	4-27	83
DeMares Arrangement	5- 4	70
Oil Shows Found in Eastern India Wildcat	5-11	58
Oil Will Lose Part of Its Eastern Market to Gas, Brown Says	5-18	94
South Carolina Considering Fixed Prices for Gasoline	5-18	105
Blazer Recommends "Market Leader" System Be Dropped	5-25	82
Record Production Outside United States	5-25	98
Jersey Standard Says Imports Had Nothing to Do With Cutbacks in Domestic Production	6- 1	31
Sinclair Steps Down	6- 1	37
T.G.T. Expanding	6- 1	99
British Government Permits Companies 3/4 Pence Gasoline Price Increase	6- 8	40
Shell's Recovery	6-15	81
Sterling Accord Emerging	6-15	82
World Production in April	6-22	159
Japan Looks Up	6-29	50
Combination of Several Factors Accounts for Present Rate of Foreign Production 10 Per Cent Above Last Year's Level	7- 6	30
New Deal in Iran	7-13	57
German Officials Propose Use of Idle Hydrogenation Plants to Boost Nation's Refining Capacity	7-13	60
No Fuels for Reds	7-20	62
Shell Tells How "Push Button" Products System Works	7-27	158
World Production Reaches Another All-Time High in Spite of Drop in Venezuela, Middle East	7-27	163
Production Outside United States at New High—4,710,000 Bbl. Daily	7-27	184
Natural Gas Appears Headed for Continued High-Level Expansion	7-27	188
Mexican Drilling Venture Starts	8- 3	32
Levant Coast Will Become World's Biggest Shipper of Crude When New Middle East Pipe Lines Are Completed	8-10	49
World Production Sets New Mark	8-24	99
ECA Ruling on Petroleum Prices in Persian Gulf May Disturb Entire Trade	9- 7	42
Caltex Protests Pricing—Refuses to Deliver Persian Gulf Oil Products to Europe	9-14	72
U. S. Production Gain of 126,000 Bbl. Daily Enables World Output to Set New Record in July	9-28	58
World Production Sets Fourth Consecutive Monthly Record for August 1950	10-19	70
Difficulties of Isolated Jungle Location Fail to Retard Oil-Development Program by Caltex Affiliate in Sumatra	10-26	65
Sinclair Completes New Puerto La Cruz Plant	10-26	63
Operators Look for Continued Increase in Oil Activity in Venezuela	11- 2	44
California Company's Wildcatting in "Virgin" Area in Pennsylvania Under Noses of Eastern Operators Adds Interest to Gas Discovery	11- 9	58
Sufficient Refinery Facilities to Meet Domestic Requirements for Petroleum Products in Bolivia to Be Provided at Sucre, Cochabamba	11- 9	69
Middle East Prices	11-16	408
Soviet Oil Progress	11-16	408
World Crude Production Exceeded 11,000,000 Bbl. Daily in September	11-23	52
In 5 Years Standard of California Has Made a Place for Itself in Highly Competitive East Coast Products Market	11-30	42
Capacity of Cartagena, Spain, Refinery May Be Increased to 30,000 Bbl. Daily with New Installations	11-30	52
First Public Posting of Export Prices for Arabian, Qatar, and Iraq Crudes Announced by Socony-Vacuum	12- 7	67
Action on Proposed Law Which Would Open Up Peru to Renewed Exploration Put Off Until Early Next Spring	12-14	67
World Production Resumes Upward Trend	12-21	204
Substantial Increase Shown in Foreign Rotary Rigs Operating	12-21	294
Industry Leaders Agree to Hold Present Prices	12-28	31
World Production Up	12-28	45
DUFF, DAHL M., and LINZ, BERTRAM F.		
British End Gasoline Rationing, Hopes for Over-all Sterling Settlement Are Raised	6- 1	40
DUNKLE, H. H.		
Gaskets for the Oil Industry	10- 5	194
DURLAND, L. V., and NYSEWANDER, C. W.		
Propane Deasphalting at Utah Oil Refining Co.	3-23	216
DUVALL, W. I., OBERT, L., ROUGH, R. L., ATCHISON, T. C., and GRANT, B. F.		
Research on Shooting Oil and Gas Wells	6- 1	65
ECKHARDT, E. A.		
Geophysical Activity in 1949	4-27	104
EGLOFF, GUSTAV		
Petroleum Chemicals 1950 and 2000	6-15	99
Chemicals From Natural Gas and Petroleum	11- 2	69
Strategic Oil Supplies	11-16	277
EICHELMANN, JOHN F.		
Design and Construction of a Gas-Compressor Station	9-21	203
ELKINS, THOMAS A.		
The Second Derivative Method of Gravity Interpretation (S.E.G. Abs.)	4-27	123
ELLSWORTH, M. A.		
Selection, Operations, and Maintenance of Cooling Equipment	4-20	243
EVANS, R. L., and ROE, R. P.		
Increased Oil Recovery From Injection Operations	9-28	68
FAGG, L. W.		
Dynamometer Charts and Well Weighing	1-12	65
FARLEY, R. C., and LEONARD, J. S.		
Gulf Hurricane and Consequent Damage to Ohio Oil Co.'s Offshore Drilling Platform in Texas Gulf Waters	2-23	136
FARRAR, G. L., and PLATT, A. M.		
Industrial Safety Organization Plan	7-27	318
FARRELL, D. M.		
Shell Reduces Eye-Injury Costs 81.7 Per Cent During 4-Year Period by Following Program of Prevention	10-12	99
FAST, C. R., and HOWARD, GEORGE C.		
Pumping Rates in Squeeze Cementing	5-25	120
FELDMAN, K. T., and WATKINS, F. M.		
New Corrosion Inhibitor Gets Job Done	11-16	340
FILSON, ROGER, and DAXON, JOHN E.		
Job Design	5-25	106
FISH, RAY C.		
...and the Story of the Builders	5- 4	84
FLAHERTY, E. H., and McNALL, F. M.		
Gas Compressor Lubrication	2- 2	63
FLORENCE, F. F.		
Oil, Gas, and the Banker	11-16	348
FOLSE, PARKER C., and FORT, HOMER T.		
Extended Pressurized Safety Hood Allows In-Place Repair of Ketone Filters	7-27	334
FORRESTER, J. H.		
Profit in Hydrogen Sulfide Conversion	4-20	155
FORT, HOMER T., and FOLSE, PARKER G.		
Extended Pressurized Safety Hood Allows In-Place Repair of Ketone Filters	7-27	334
FRANCIS, A. W., JR., and MAHER, J. L.		
Automatic Package Units for Dehydration	1- 5	70
FRAZIER, H. D., and BLOHM, C. L.		
Chemical Deterioration of Cooling-Tower Lumber	3-16	72
FRITZ, IRA T.		
Bender Lead Sulfide Treating Process	2-23	180
FUCHS, OSCAR A.		
Newly Dedicated Pan-Am Southern Delayed-Coking Unit Charges 9,300 Bbl. Daily	10-26	76
GARDNER, F. T., and ANDRESEN, KURT H.		
Requirements of Subsurface Injection Water in Oil Production	9- 7	72
GEORGE, J. B.		
Vent Lines High-Pressure Settings	2-16	125
GILLESPIE, BART W., and COLEMAN, J. RALPH		
Mexican American Completes 18 Months of Operations	12-21	261
GILMOUR, ANDREW		
The State of Seismic Prospecting	4-27	110
GIVENS, HOMER C.		
LaGloria Plant Gets Three Major Additions in 9 Years	4-20	180
GLENN, A. H.		
Wave, Tide, Current, and Hurricane Problems in Coastal Operation	6-22	174
GLIDDEN, J. D.		
Chalk Hill Plant Illustrates Manufacture-Repressure Design	4-20	240
GOODRICH, J. D.		
Floating Compressor Plants	6- 1	62
GOINS, WILLIAM C., JR.		
A Study of Limed Mud Systems	1-19	52
GOLDSMITH, LESTER M.		
Design and Construction of Atlantic's West Texas-Gulf Line	9-21	244
GOODWIN, CARLTON L.		
New Developments in Coatings and Cathodic Protection	11-16	355

	Date	Page
GOULD, JAY P.		
New Plug Seal Nipple Makes Possible Simplified, Economical Christmas Trees	9-28	81
GOULD, HOWARD R.		
Some Quantitative Aspects of Lake Mead Turbidity Currents (Abs.)	4-27	176
GRACE, E. J.		
Process Monitoring Systems	10- 5	202
GRANDONE, P., TALIAFERRO, D. B., and JOERS, J. C.		
Water Flood in Neosho County, Kansas (Part 1 of 4 Parts)	6-29	60
Keas Drilling Co. Water Floods Bartlesville Sand in Neosho County, Kansas—700 Ft. (Part 2 of 4 Parts)	7- 6	46
Pilot Water Flood of Cox and Hamon Has Unusual Layout of Equipment (Part 3 of 4 Parts)	7-13	82
Deep Rock Water Floods 304 Acres (Part 4 of 4 Parts)	7-20	91
GRANQUIST, W. T., BODIE, W. W., and SPANGLER, C. V.		
New, Safe, Practical Storage and Transportation Method for Light Hydrocarbons	4-20	170
GRANT, B. F., DUVALL, W. I., OBERT, L., ROUGH, R. L., and ATCHISON, T. C.		
Research on Shooting Oil and Gas Wells	6- 1	65
GREGORY, L. S.		
"Packaged" Gasoline Plant Is Completely Portable	11-30	60
GREGORY, VANCE P., GRONINGER, C. RICHARD, and PRUSICK, J. HENRY		
Chemical Treatment of Flood Waters Used in Secondary Oil Recovery	8-31	74
GRIMES, OTHA H.		
Natural Gasoline Industry Needs Young Technically	4-20	156
GRONINGER, C. RICHARD, PRUSICK, J. HENRY, and GREGORY, VANCE P.		
Chemical Treatment of Flood Waters Used in Secondary Oil Recovery	8-31	74
GROSS, H. H., SKELTON, W. E., and BEST, J. C.		
Furfural Refines Gas Oil	3-23	211
GUNTER, HERMAN		
Oil Exploration in Florida During 1949	6-22	310
GUSTAFSON, J. D.		
Recent Canadian Oil Developments	1- 5	63
HAENSEL, DR. VLADIMIR		
Platforming Approaches the Ideal Solution for Reforming Low-Octane and Straightrun Gasolines	3-30	82
Commercial Platforming at Old Dutch Refinery	3-30	85
HAFSTEN, R. J.		
Corrosion of Relief Valves in Sour-Crude Service (A.P.I. Abs.)	5-25	149
HAGEN, CECIL V.		
American Concern Planning an Active Drilling Campaign in Ecuador	12-21	270
HAGER, DORSEY		
The Search for Oil and Gas in the Rocky Mountain Region	5-18	116
HAGER, KARL F., and ROSENTHAL, MORRIS		
Water-Soluble Cutting Oils Used as Pickling Inhibitors	8-24	142
HAGER, KARL F., ROSENTHAL, MORRIS, and ROSS, WERNER		
Simple, Rapid Method of Producing Thermocouple Junctions	7-13	87
HALBOUTY, MICHEL T.		
Types of Hydrocarbon Accumulation and Geology of South Liberty Salt Dome, Liberty County, Texas (A.A.P.G. Abs.)	4-27	119
HALL, J. W.		
Double Jointing for Transcontinental Project	5- 4	94
HALLBERG, SPENCER A.		
A Method for Computing Size of Tanks at Product Pipe-Line Terminals	9-21	214
HAMMER, SIGMUND		
Density Determination by Underground Gravity Measurements (S.E.G. Abs.)	4-27	123
HANSEN, HILLMAN A., and PEMBERTON, J. R.		
Mobile Exploration Rig for Offshore Work	5-18	122
HANSON, D. D., and SUTHERLAND, E. K.		
Platforming of Natural Gasoline	4-20	177
HARDCASTLE, COY A.		
T.C.C. Unit Turnaround After 2 Years' Operation	3-23	261
HARDIE, B. G., and VOIGT, M. J.		
Use of Periodicals in Petroleum Research	5-18	121
HARRIS, J. J.		
Meter Maintenance	9-21	334
HARRIS, LEON T., DOUGHERTY, WILLIAM F., PFARR, JOHN S., and POLLARD, ROBERT W.		
Maintenance in a Small Refinery	5-18	145
HARSHMAN, J. B.		
Eastern Section Construction Transcontinental Gas Pipe-Line Project	5- 4	112
HARVIE, J. A.		
Secondary Recovery for Turner Valley?	12-21	246
HARWICK, ROBERT		
Twin Naphtha-Rerun Units	1- 5	55
West Coast Deep-Water Drilling	1-26	161
Super-Inch	2- 2	50
HAZZARD, JOHN C., SIMONSON, R. R., DUDLEY, P. H., WEDDLE, H. W., and D. M. DAVIS		
Oil and Gas Traps in California (A.A.P.G. Abs.)	4-27	119
HEARNE, G. W.		
Chlorination of Petroleum Hydrocarbons	2-23	163
HEDLIN, J. P.		
Design of an Unattended Automatic Booster Station	10-19	86
HELLUMS, EARLE C.		
New Drilling Methods and Equipment	3- 2	50
HERLOCKER, R. D.		
Photography Proves Valuable to Sinclair's East Chicago Refinery	7- 6	40
HERSCHMAN, WILLIAM L.		
Drilling in Western Nebraska	5- 4	146
HERVEY, O. S., and BOOTH, BARRETT E.		
East Village Mills Field Currently a Gulf Coast Hot Spot	6-22	200
HICKS, TYLER G.		
Planning Modern Gas-Compressor Stations: (Part 1) Foundations and Buildings	2-16	92
Planning Modern Gas-Compressor Stations: (Part 2) Complessor Characteristics and Installation	2-23	183
Planning Modern Gas-Compressor Stations: (Part 3) Compressor Cooling	3- 2	73
Planning Modern Gas-Compressor Stations: (Part 4) Cooling Equipment, Air Filters, Exhaust Systems	3- 9	86
Planning Modern Gas-Compressor Stations: (Part 5) Safety Devices and Station Heating	3-16	95
HILL, A. M., ZILM, F. W., and SPENCER, C. E.		
Electric-Arc Welding of Cast Iron	9-21	233
HILLSMAN, J. M., and KILGREN, E. W.		
South Fullerton Gasoline Plant Good Example of Conservation and Producer Cooperation	6-15	112
HIPPARD, R. M., and LAMBERT, T. B.		
Gas-Oil-Ratio Repair and Control . . . in West Texas and New Mexico	3-30	86
HOLADAY, W. M.		
Advances in Petroleum Refining	10-12	84
HOLLINGSWORTH, W. E.		
Geophysical Case History of Delhi Field, Northeast Louisiana (S.E.G. Abs.)	4-27	120
HOPKINS, W. B.		
Well Remedial Work	8-31	69
HOOT, CARL F.		
28,000 Acres Sold in Scurry County	1-19	41
Wildcat in Cogdell-North Snyder Gap Gets Production	3- 2	28
T.I.P.R.O. Hits Other Southwestern States	3-16	50
Texas Allowable Reaction	3-30	55
Borden, Kent Get New Wells, Howard County Test Staked	4- 6	43
Pegasus Report	6- 8	39
Oil Industry Must Be Prepared for an Attack on U. S., Jennings Tells Texas Group	10-12	66
HOOT, CARL F., and CARLSON, ROY F.		
Scurry Summary	3- 9	54
New Midland Field	6-22	150
Kent County Takes West Texas Spotlight as Pennsylvanian Lime Discoveries Hint Reef Formations	8- 3	27
HOOVER, HERBERT, JR., and MYERS, HOWARD		
Geophysical Exploration in Northern Alaska (S.E.G. Abs.)	4-27	120
HOPKINS, HOWARD F.		
Use of Bottom Plug in Cementing Operations	6-22	308
HOPKINS, OLIVER B., DR.		
Oil in Western Canada	8- 3	54
HORN, A. J.		
Blowouts on California Drilling Operations Causes and Suggestions for Prevention	7-27	289
HOWARD, GEORGE C., and FAST, C. R.		
Pumping Rates in Squeeze Cementing	5-25	120
HOWELL, A. P., and BOND, R. K.		
New Method Developed to Identify Interfaces in Product Pipe Lines	7-13	66
HOYLMAN, H. WAYNE		
The Advantage of Airborne Over Ground Magnetics for Purposes of Interpretation (A.A.P.G. Abs.)	4-27	120
HOYT, CHARLES P.		
Mechanical Modernization at Esso Standard's Baton Rouge Refinery	6-22	178

	Date	Page
HUBER, T. A., ALLEN, T. O., and ABENDROTH, G. F.		
Average Completion Cost Is 20 Per Cent of Total Well Cost	11-16	234
HUDSON, E. J.		
Highlights in Modern Gas-Compressing Plant Design Trends	4-20	160
HUFFMAN, K. P., and VINCENT, R. R.		
Water-Flood Operations in Illinois, Indiana, Kentucky, Ohio, Michigan, and West Virginia	6- 1	57
HUGHES, HAROLD K., and WILCZEWSKI, JOHN W.		
Rapid X-ray Determination of Surfur in Distillate Fuels (A.P.I. Abs.)	5-25	150
HUNTINGTON, R. L.		
Economics of Reducing Crude-Oil Vaporization Losses	6-15	108
Effect of Temperature and Pressure on Crude-Oil Gravities	8-31	58
ILFRED, R. M.		
Recording Mass Spectrometer	7- 6	50
INGALLS, PHILIP C.		
May Completions Set Record for Year; Over 12 Million Feet Drilled	6-29	131
Alberta Oil Fields	7-13	68
Systematic Development Program Followed by Canadian Gulf Oil Co., in Alberta's Stettler Oil Field	7-20	70
First-Half Production Points to High Average for Year	7-27	177
Sholem Alechem Is Active Again	8-10	77
Good Production Found in Old Skellyville Field	9-14	67
Composite Electric Logs for Central and North-Central Oklahoma	9-14	128
Expanding Ringwood	9-28	52
Composite Electrical-Radioactivity Log—Central Basin Platform in Permian Basin	10-19	122
More Imaginative Thinking in Specifications Required for Wildcat Prospects Advocated at Fort Worth Meeting	12- 7	58
JACOBS, R. W.		
Panhandle's "Kitten Cracker" Has 1,250-Bbl. Daily Charge	6-29	81
JEFFREY, R. E., DUCKWORTH, J. B., and GAY, E. J.		
Effects of Sulfur in Motor Gasoline on Engine Operation (A.P.I. Abs.)	5-25	149
JENKINS, F. M., and BYRNE, T. J.		
Maintenance of a Fluid Cat. Cracking Unit	3-23	275
JEWELL, J. W., JR., and CONNOR, J. P.		
Economics of Petroleum Coking	11-23	64
JOERS, J. C., GRANDONE, P., and TALIAFERRO, D. B.		
Water Flood in Neosho County, Kansas (Part 1 of 4 Parts)	6-29	60
Keas Drilling Co. Water Floods Bartlesville Sand in Neosho County, Kansas—700 Ft. (Part 2 of 4 Parts)	7- 6	46
Pilot Water Flood of Cox and Hamon Has Unusual Layout of Equipment (Part 3 of 4 Parts)	7-13	82
Deep Rock Water Floods 304 Acres (Part 4 of 4 Parts)	7-20	91
JOHNSON, CHARLES B., JR.		
Underground Storage of L.P. Gases	6- 8	50
JOHNSON, W.		
"Spot" Reconditioning	8-10	61
JOHNSTON, KENNETH H., and WEST, JAMES A.		
Water Flooding in Weber Pool—Washington County, Oklahoma (Part 1)	12- 7	79
Water Flooding in Weber Pool—Washington County, Oklahoma (Part 2)	12-14	90
Water Flooding in Weber Pool—Washington County, Oklahoma (Part 3)	12-28	57
JONES, W. C., SEYFRIED, W. D., and CRUTHIRDS, A. V.		
Semimicrofractionation by Means of Spinner Columns	2-16	117
JUST, THEODOR		
Mesozoic Plant Microfossils and Their Geological Significance (Abs.)	4-27	178
KAHLE, LOREN F.		
Canadian Interprovincial Pipe Line Case History	9-21	206
KAUFMANN, GODFREY F.		
Postwar Exploration for Petroleum in Japan (Abs.)	4-27	123
KAVELER, H. H.		
More Wells—More Oil?	4-20	208
KAYE, H., and SPENCER, R. K.		
Acid Sludge Fuels Used in Steam Generation	2- 9	80
KEANE, C. C.		
The Internal-Combustion Turbine in Liquid and Gas Pipe-Line Service	9-21	309
KEMLER, EMORY N.		
Gulf Coast Area Keeps Abreast of Technological Progress Through Research Activity	6-22	187
KENDALL, GEORGE F.		
Here's How Socony-Vacuum Conducts Transport in Venezuelan Operations	12-14	76
KIESCHNICK, W. L., JR., and WHORTON, L. P.		
Oil Recovery by High-Pressure Gas Injection	4- 6	78
KILGREN, E. W., and HILLSMAN, J. M.		
South Fullerton Gasoline Plant Good Example of Conservation and Producer Cooperation	6-15	112
KILGREN, E. W., COOK, J. M., and McCOLLUM, J. E.		
Levelland Gasoline Plant	5-18	119
KNIGHT, E. T.		
1950 Demand Seen As Nearly 6.5 Million Barrels Daily	1-26	194
Last Half Demand to Increase 6.1 Per Cent Over Same Period 1949	7-27	180
KNOWLTON, D. R., and MASTERS, R. W.		
Gas-Injection Project Temblor Zone, Kettleman North Dome Field	6-15	93
KOENIG, E. A.		
Centrifugal Compressors on the Texas Eastern Transmission Corp. System	6-29	66
KOHL, A. L.		
Gas-Treating Process	11-30	63
KORNFELD, JOSEPH A.		
35 Rigs Drilling in Ringwood Field	9-14	84
New Penetration Curve	9-28	102
Texas Commission Will Attempt to Bring About Oil Conservation in Individual Oil Fields	10- 5	126
A.I.M.E. Petroleum Branch Hears About Oil for an Asian War	10-12	58
Goose Creek Field Revival Results in 71 New Wells	10-19	65
Gas Regulation Can't Be Achieved on the Common-Carrier Concept Applied to Other Utilities, Marshall Newcomb Tells I.N.G.A.A.	10-26	59
Industry Must Redouble Efforts Against Those Seeking to Nationalize Economy, Mid-Continent Oil and Gas Men Told	11- 9	54
New Extensions to Oil and Gas-Distillate Field in Corpus Christi Bay Holding Attention of South Texas Operators	11-23	49
Moss Bluff Revived; Salt Dome Area Producing After Lapse of 17 Years	11-30	45
United Gas New Laboratory at Shreveport in Operation	12- 7	57
Railroad Commission Orders Continuation of Present Texas Oil Output for January; Gas-Oil Ratio Rule to Be Maintained	12-21	147
Commissioner Predicts Texas Production Will Set Record in 1951	12-28	40
Blue Ridge Field Stages Comeback	12-28	52
KOTZBUE, MEINHARD H.		
Economy Principal Factor in Design of Present-Day Processing Plant	4-20	158
KRAFT, WARREN H., and LACY, F. H., JR.		
Joint Gas-Gathering System and Compressor Plant for Cymric Field	1-19	66
KRICK, IRVING P., DR.		
Oceanographic and Meteorological Factors	2-23	154
KRUMBEIN, W. C.		
Occurrence and Lithologic Associations of Evaporites in United States (Abs.)	4-27	179
KURTIS, SOMA, and BROWN, KENNETH M.		
Neutralization of Spent Caustic With Flue Gas	7-20	81
LaCROIX, JEAN P.		
R.A.P. Encounters Unusual Problems in Laying 165-Mile Toulouse-Bordeaux Gas Line	6- 8	62
LACY, F. H., JR., and KRAFT, WARREN H.		
Joint Gas-Gathering System and Compressor Plant for Cymric Field	1-19	66
LACY, STERLING S., JR.		
Water Flooding Wesson Hogg Sand Reservoir to Insure Maximum Oil Recovery	4-13	101
LA FORTUNE, J. A.		
Three Factors in Today's Natural Gasoline Operations	4-20	152
LAHEE, FREDERIC H.		
Wildcat Drilling in 1949	5-11	70
Our Oil and Gas Reserves—Their Meaning and Limitations	11-30	69
LAMAR, LUCIUS M.		
The California Co. Since 1941	6-22	274
LAMBERGER, E. H., and SWINDELL, R. A.		
Power Factor Correction on a Pumping Lease	2- 9	71
LAMBERT, T. B., and HIPPARD, R. M.		
Gas-Oil-Ratio Repair and Control . . . in West Texas and New Mexico	3-30	86
LaROCK, T. B.		
Slack Loop Practice	7-13	99
LAUBACH, NEAL B.		
Selection, Operation, and Maintenance of Water-Cooling Towers	1-12	58
LAUDERBAUGH, A. B.		
The Fundamentals of Galvanic Corrosion	8-17	97
LAWSON, J. M., and PIERCE, R. B.		
Globe Refining Solves Some Operating Problems	12-28	56

	Date	Page
LEE, DR. F. W.		
Sand Extension Measurements From Gas and Oil Wells (A.A.P.G. Abs.)	4-27	120
LEIPPER, DALE F.		
Ocean Waves and Marine Oil Operations	6-22	214
LEONARD, J. S., and FARLEY, R. C.		
Gulf Hurricane and Consequent Damage to Ohio Oil Co.'s Offshore Drilling Platform in Texas Gulf Waters	2-23	136
LEWIS, O. L.		
Specification of Pipe for Refinery Service	3- 9	97
Here's the What, When, Where, Who of Flanges	8-17	88
Flange, Gasket, and Bolting Materials for Refinery Service	8-24	134
LIEBMAN, A. J.		
Surface Preparation Value and Sand Blasting Economics (N.A.C.E. Abs.)	4-27	192
LINK, WALTER K.		
Approach to the Origin of Oil	3-16	88
LINZ, BERTRAM F.		
Britain Seeks to Prevent American Firms Supply Japanese Refineries	1- 5	24
Oil Taxes, Leases to Provide $658,000,000; Truman Tells Congress	1-12	29
Exclusive-Dealer Contracts Are Alleged in Suit Against Sun	1-19	32
Harris Bill for Creation of Oil Policy Council Opposed	2- 2	21
Reserves Sufficient to Meet All Demands	2- 2	22
British-Ban Deadlock	2- 9	48
Depletion Dickering	2- 9	50
Depletion-Allowance Hearing Brings Oil-Industry Spokesmen to Washington	2-16	67
Sterling Puzzle	2-16	68
Depletion Defended Before Ways and Means Committee	2-23	111
Congress Looks at Oil Imports	2-23	112
Import Quota Restored—Mexican Trade Agreement Will Be Abrogated	3-16	47
Marshall-Plan Needs	3-16	59
Kerr Gas Bill Passed	4- 6	47
Liquid Fuel From Peat	4- 6	47
British Reply on Oil Policy Awaited	4-13	72
Kerr Gas-Bill Veto	4-20	134
RFC's Approval of Texmass Loan Criticized Before Senate Committee	4-20	136
Texmass Loan Defended	4-27	66
Gas Men's Quandary	5- 4	62
Texmass Given Extra Month to Meet FPC Requirements	5- 4	68
RFC Explains Texmass Loan	5-11	51
Justice Department Files Civil Suit Against Seven West Coast Majors	5-18	100
Oil, Coal, Farm Interests Tell Congressmen Foreign Oil Is Wreaking Havoc With Domestic Industry	6- 1	30
Tidelands Decision	6- 8	29
State Department Says Domestic Coal and Oil Troubles Not Due to Imports	6-15	65
The Tidelands Plum	6-15	67
Mexican Oil Treaty Abrogated	6-29	44
The New FPC	7- 6	26
War Hits the Industry	7-27	155
Import Rule Expires	8- 3	22
Outlook Is Minimum of Controls, No Serious Shortages of Steel Products or Petroleum Supplies in Near Future	8-10	37
Administration Gets Flexible Powers Over Materials and Inventories	8-17	55
Controversy in Washington Over Defense Production Act	8-24	89
Bureau of Mines Will Try Out Modified Oil-From-Coal Process and Equipment Late This Fall	8-31	42
Dollar Sterling Oil Controversy With Britain Quieted, But System Still Curbs Trade	9- 7	48
Federal Agencies to Start Administering Powers of Control Under the Defense Production Act	9-14	63
Government Agencies Start Perfecting Defense Production Act Machinery	9-28	47
Synthetic-Rubber Step Up	9-28	56
Control Plan Sought by NPC	10- 5	117
PAD Places Avgas Supply Step-Up Problem in Refiners' Laps	10- 5	62
PAD Now Functioning, With Powers and Limitations Set by Official Orders	10-12	63
PAD Reports Good Progress in Output Increase of Avgas	10-12	57
Government Calls on Oil Industry to Break Bottleneck in Chemical Essential for Synthetic Rubber and Plastics	10-19	60
Nippon's Refineries	10-26	67
NPA Lays Basis for Priorities on Steel for Oil Industry	11- 2	35
Definite Steel Program for the Oil Industry Being Prepared by PAD and NPA As Senate Committee Investigates Shortage	11- 9	49
PAD Tells NPA Oil Industry Must Have 1,947,000 Tons of Tubular Goods for Production, Natural Gasoline in 1951	11-16	189
Complete Government Control of Distribution, Use of Basic Materials Will Be in Full Effect by Mid-1951	11-23	39
Senate Committee Says "Paper-Work Preparedness" Is Not Adequate; Cites Blunders in Synthetic-Rubber Program	11-30	37
Method of Administering Oil-Import Quota Provisions Under Venezuelan Agreement Expected to Be Announced by State Department	12- 7	53
Oil-Storage Capacity in U. S. Nears 910,800,000 Bbl.; 50,918,000-Bbl. Increase Over 1948	12-14	53
Programs to Insure Availability of Urgently Needed Supplies for Drilling, Refining Awaiting NPA Approval	12-21	139
Government Asks Oil Industry to Hold December 8 Prices on Crude, December 18 on Products	12-28	31
Steel Company Representatives to Meet With PAD, NPA Officials to Consider PAD's Request for Steel for Oil Operations	12-28	33
LINZ, BERTRAM F.		
Watching Washington (Weekly)		
LINZ, BERTRAM F., and DUFF, DAHL M.		
British End Gasoline Rationing, Hopes for Over-All Sterling Settlement Are Raised	6- 1	40
LONG, E. Y.		
Drilling Development in Sussex Area, Johnson County, Wyoming	7- 6	43
LOVE, J. DAVID		
Oil and Gas Possibilities in Post-Frontier Cretaceous Rocks of Wyoming (Abs.)	4-27	176
LOW, C. H., and DOUGAN, C. W.		
The Properties of Lost-Circulation Materials	9- 7	82
LOWENSTAM, H. A.		
Niagaran Reefs in Illinois and Their Relation to Oil Accumulation	3- 2	48
LOWENTHAL, E. A., and ULMER, R. C.		
Modern Trends in Industrial Water Treatment	4-13	92
LUCAS, E. L.		
Petrographic Study of Pennsylvanian Sandstones in Murray County, Oklahoma (Abs.)	4-27	178
LUTZ, H. A., and CLAASSEN, L. L.		
Modern Light-Oil Refinery Completed	8-24	110
LYLE, H. N.		
Casing-Leak Problems	2- 9	78
Well-Site Interpretation of Electric Logs	11-23	77
LYNCH, JOHN F.		
Natural Gasoline Industry Indispensable to Conservation Movement	4-20	154
LYNCH, R. H.		
Economics of a Products Pipe Line . . . A Study of a Hypothetical Artery	11-16	214
McCARTHY, EUGENE L., BOYD, W. L., and REID, L. S.		
Water-Vapor Content of Essentially Nitrogen-Free Natural Gas Saturated at Various Conditions of Temperature and Pressure	1- 5	59
McCASLIN, LEIGH S., JR.		
Industry Now Recovering But $1 for $10 Invested in Gulf	1- 5	32
Army Teaches Oil Industry New Tricks in Getting from Here to There	1- 5	44
Shell's Marine Rig No. 10	1-12	54
Reactions to Third Consecutive Reduction in Texas Oil Allowables	1-26	163
Williams Drilling Co.'s New 8,000-Ft. Submersible Drilling Barge	2- 9	67
MER System Junked by Texas Railroad Commission	2-23	117
Pure's New Smith's Bluff Plant to Produce 90,000 Gal. of Finished Stocks Daily	3- 2	26
Texas Railroad Commission Settles on Depth-Acreage Method of Determining Allowables	3- 2	28
Use of Sonic Collectors to Remove Fine Particles from Processing Exhaust Gases	3- 9	50
Texas' Gas Utilization	3-16	51
Flare-Gas Problems	3-30	56
New Products, Processes	3-30	57
Offshore Activity	3-30	62
Synthetic Fuels and Lubricants, New Processes for Making Chemicals from Petroleum Discussed at A.C.S.'s Convention	4- 6	42
Porter to Head A.P.I.	4- 6	44
Lion Oil Co.'s Increase in Crude Output Led All Texas Producers	4-13	57
Offshore Oil Problems to Be Studied in New Center	4-13	61
Big Steam Rig on 14,000-Ft. Magnolia Well Runs 90-Day Test on Water-Tube Boilers	4-13	84
Gas-Pipe-Line Use of Lightweight Gas Turbine Believed Promising	4-20	139

	Date	Page
Microwave Study	4-27	70
Gasoline Plant to Handle 600,000,000 Cu. Ft. of Natural Gas Daily	4-27	78
Advisory Group Asks Recovery Study of All Louisiana Oil Fields	5- 4	69
Dollar Savers in Drilling (Compiled by McCaslin)	5-25	156
Gulf Coast Reaction on Tidelands Decision	6- 8	30
Texas and Louisiana Won't Take Court Decision as Final, Redouble Efforts to Have Congress Confirm Offshore Claim	6-15	68
Dow Expands Chemical Firm to $30,000,000 at Freeport	6-15	139
Offshore Pipe Line	6-22	152
Plans Announced for 30-In. Gas Line to Southern Michigan	6-29	41
Humble's New 370-Mile 18-In. Oil Pipe Line	6-29	58
Firm Proposes 2,175-Mile Gas Line from Texas Gulf Coast to Pacific Northwest	7- 6	23
Forty-Three New Louisiana Laws Cover Oil, But Industry Escapes Legislative Session Without Serious Restrictions	7-20	59
Alcoa's New Plant Uses Natural-Gas Power Source	8- 3	58
Offshore Gas Pipe Line Presented Variety of Unusual Problems to Builders	9-21	277
Unusual Practices Being Followed in Constructing Trunkline Gas Artery	9-21	318
Texaco's Drilling Barge Gibbens	9-28	72
A.S.M.E. Discusses Operational Cost-Cutting	10- 5	122
N.A.C.E. Hears Cost of Corrosion	10-19	62
Construction on 1,832-Mile Texas-New York Line Reaches Highest Level; First Gas to Be Delivered by December 1	10-19	69
Imports and Stocks Should Continue at About Present Levels, Executives of Major Oil Companies Advise Texas Railroad Commission	10-26	58
T.I.P.R.O. Calls for More Steel to End Black Market of Tubular Goods	10-26	61
Industry Won't Have to Defend Depletion-Allowance System Again for Several Years, Congressman Tells Oil, Gas Group	11- 9	54
160,083-Bbl. Daily Cut in Texas Oil Allowable Made by Railroad Commission Following Testimony That Stocks Are Ample	11-23	48
Houston Teachers Told How Oil, Gas Business Operates	11-23	50
United Gas Pipe Line Co. to Buy from Pure Wells Off Gulf Coast	11-30	45
Humble Making Hole With World's Most Powerful Barge-Mounted Rig	11-30	66
Eastern Storms May Free More Cement for Oil-Area Use	12- 7	61
T.G.T. President Says Gulf Coast Gas Will Flow Into New England by Labor Day, 1951; Line Work to Begin in Spring	12-14	57
Advocation of Federal Regulation of "End Use" of Oil and Gas Endangers State Conservation, Shivers Tells Compact	12-14	58
Transportation, Refining Problems Need Attention to Assure Free Flow of Hydrocarbons for All Needs, Brown Tells I.O.C.C.	12-21	143

McCASLIN, LEIGH S., JR., and WEBER, GEORGE
Radio Use in Petroleum Operations Doubles in Past Year — 8-24 — 91

McCLATCHEY, G. E.
Deep-Water Rig Moves and Drills in Water Shallower Than Vessel Draft — 8-10 — 70

McCOLLUM, J. E., COOK, J. M., and KILGREN, E. W.
Levelland Gasoline Plant — 5-18 — 119

McCOY, ALEX W., III, SIELAFF, ROBERT L., BASS, R. W., GEORGE R. DOWNS, and MAXSON, JOHN H.
Types of Oil and Gas Traps in Rocky Mountain Region (A.A.P.G. Abs.) — 4-27 — 118

McDONALD, D. T.
Seeligson Field Pressure-Maintenance and Hydrocarbon-Recovery Plant — 5-11 — 78

McELHANNON, W. A., and CLEVENGER, O. L.
New Device Perfected for Lighting Pilot Light on Elevated Flare Stacks — 3-30 — 91

McNALL, F. M., and FLAHERTY, E. H.
Gas Compressor Lubrication — 2- 2 — 63

McNEIL, E. B., and DRAUGHON, C. R., JR.
Cathodic Protection for Open-Box-Type Coolers — 6- 1 — 76

McPHERSON, E. E.
Planning a Large Unit Turnaround — 9-28 — 94

MADILL, F. A.
Nature's Forces Help in Making Winter River Pipe-Line Crossings — 9-21 — 230

MAHER, J. L., and FRANCIS, A. W., JR.
Automatic Package Units for Dehydration — 1- 5 — 70

MANLEY, H. W.
Experimentation Conducted on Underground Storage of L.P.G. — 4-20 — 156

MASON, W. D., JR., and BROWN, C. K.
Central Control of a Gulf Coast Pressure-Maintenance Project — 6-22 — 206

MASTERS, R. W., and KNOWLTON, D. R.
Gas-Injection Project Temblor Zone, Kettleman North Dome Field — 6-15 — 93

MATTHEWS, F. W. H., and PARSONS, D. F.
Copper-Strip Test—A Study of Current Methods of Interpretation and an Examination of Proposed New Procedures (A.P.I. Abs.) — 5-25 — 147

MATTOCKS, E. O., and RUGH, K. W.
Sales of Liquefied Gas Increased Last Year — 1- 5 — 28

MENARD, HENRY W., and LUDWICK, J. C.
Some Theoretical Aspects of Density Currents (Abs.) — 4-27 — 172

MEREDITH, H. H., JR., and REED, J. A., II
Allowable Loads on Unsupported Casing Column Under Action of Horizontal Wave Forces and Vertical Well-Head Loading — 10-19 — 80

MESICK, COL. BENJAMIN S.
Fuels for Our Fighting Forces — 11-16 — 283

MIDDLEBROOK, V. E.
Natural-Gas Processing — 12- 7 — 85

MILLER, A. J., and CONNORS, J. S.
Operating Problems Related to Gas Treating — 2- 2 — 57

MILLER, I. A.
Freezing Plugs in High-Pressure Wells by Means of "Dry Ice" — 3-30 — 95

MOORE, O. H.
Practical Application of Large-Clearance Compressor Cylinders to Gas-Transmission Lines — 9-21 — 219

MOORE, STANLEY C.
What Do You Know About Drill-Collar Failures? — 10-26 — 79

MOORE, G. T., DOMKE, C. J., and DUCKWORTH, J. B.
Road vs. Laboratory Knock Ratings — 5- 4 — 143

MUNTON, J. D.
Multichannel Microwave Radio Relay System — 2-16 — 88

MURPHREE, E. V., DR.
Synthetic Plastics, Fibers, and Rubbers—From Petroleum — 7-27 — 222

MURRAY, GROVER E.
Geosynclinal Deposits in Central Gulf Region of United States (Abs.) — 4-27 — 123
Lithologic Facies of Jacksonian Stage, Central and Eastern Gulf Coast (Abs.) — 4-27 — 123

MURRAY, H. W., and CRENSHAW, W. H.
Developments in Corrosion Prevention in West Texas — 4-27 — 166

MUSKAT, MORRIS
Some Theoretical Aspects of Cycling (Part 1) — 1-19 — 55
Some Theoretical Aspects of Cycling (Part 2) — 2- 2 — 53

NANCE, W. T., and PAYNE, J. M.
Nine Fully Automatic Leases Installed in East Texas Field — 8-10 — 58

NATLAND, M. L.
Sedimentary Features Suggesting Turbidity Flow in Deep Southern California Tertiary Basins (Abs.) — 4-27 — 177

NAUGLE, JOHN M., and WILLIAMS, ROGER W.
Vacuum Distillation and Vis-Breaking — 3-23 — 241

NELSON, W. L.
PROGRESS IN METALS (monthly)
QUESTIONS ON TECHNOLOGY (weekly)
COST-IMATING (quarterly)

NEWTON, JOHN P.
Pump-Station Operation on Salt Lake's Product Line — 9-21 — 323

NICHOLSON, CHARLES, and SUPPLEE, G. H.
How to Improve A.P.I. Code 25 — 11-16 — 346

NORDELL, ESKEL, and VOSS, N. A.
Water Conditioning for Oil-Field Flooding Operations — 11- 9 — 174

NYSEWANDER, C. W., and DURLAND, L. V.
Propane Deasphalting at Utah Oil Refining Co. — 3-23 — 216

OBERT, L., ROUGH, R. L., ATCHISON, GRANT, B. F., and DUVALL, W. I.
Research on Shooting Oil and Gas Wells — 6- 1 — 65

OWEN, HENRY C., JR.
Flow of Gas in Pipe Lines — 3- 9 — 71

OWEN, LUCY DEE
112 Wells Drilled Below 12,000 Ft. in Gulf Coast Area in 1949 — 6-22 — 244

PARKER, MARGARET A.
Application of International Business Machines to Geological Data (Abs.) — 4-27 — 172

PAYNE, J. M., and NANCE, W. T.
Nine Fully Automatic Leases Installed in East Texas Field — 8-10 — 58

PEAHL, L. HARMAN
Installation, Operation, and Performance of a Skid-Mounted Gas-Dehydration Plant — 7-13 — 92

	Date	Page
PEMBERTON, J. R., and HANSEN, HILLMAN A.		
Mobile Exploration Rig for Offshore Work	5-18	122
PENROD, J. M.		
Joe's Lake Field Pioneers Secondary-Recovery Methods in Eocene Wilcox Sands	6-22	239
PERKINS, JR., J .A.		
Completion and Production Techniques in Unconsolidated Sands	8-24	113
PERRY, C. W., and PIERCE, W. R.		
Utilization of Natural Gas for Conversion Into Nitrogenous Fertilizers	5- 4	138
PFARR, JOHN S., POLLARD, ROBERT W., HARRIS, LEON T., and DOUGHERTY, WILLIAM F.		
Maintenance in a Small Refinery	5-18	145
PHILLIPS, CECIL, and CAMP, E. G.		
Pilot Unit Studies on Filtration of Refinery Emulsions and Separator Sediment	2-23	214
PHLEGER, FRED B.		
Faunal Evidence for Mass Movement of Submarine Sediments (Abs.)	4-27	177
PIERCE, R. B., and LAWSON, J. M.		
Globe Refining Solves Some Operating Problems	12-28	56
PIERCE, W. R., and PERRY, C. W.		
Utilization of Natural Gas for Conversion Into Nitrogenous Fertilizers	5- 4	138
PIKE, J. EVERETT		
An Insurance Counselor's Views on Offshore Risks	2-23	146
PLATT, A. M., and FARRAR, G. L.		
Industrial Safety Organization Plan	7-27	318
POE, ROBERT M.		
Vast Market Awaits Development of Venezuela's Natural Gas	12-21	228
POHLY, RICHARD A.		
Significant Gravity Pattern in Reef Anomalies (A.A.P.G. Abs.)	4-27	119
POWELL, R. A.		
Economics of Contract Drilling in California	6- 8	65
POLLARD, ROBERT W., HARRIS, LEON T., DOUGHERTY, WILLIAM F., and PFARR, JOHN S.		
Maintenance in a Small Refinery	5-18	145
PRICKETT, T. B., CAMPBELL, M. H., JOHNSON, R. L., and KNEE, D. A.		
Effect of Hydrocarbon Structure on the Road Antiknock Performance of Motor Fuels (A.P.I. Abs.)	5-25	149
PRUSICK, J. HENRY, GRONINGER, C. RICHARD, and GREGORY, VANCE P.		
Chemical Treatment of Flood Waters Used in Secondary Oil Recovery	8-31	74
PRUSSING, GEORGE F.		
An Introduction to Modern Fire Control	3- 2	59
PULLEYBLANK, DONALD H., and LOVELL, WHEELER G.		
Road Effectiveness of Tetraethyl Lead as Influenced by Added Sulfur (A.P.I. Abs.)	5-25	150
RAGATZ, EDWARD C.		
Rich-Oil Rectification Employed to Achieve Flexibility and Efficiency	4-20	159
RAHMES, N. H.		
North Cowden, One of Nation's Largest Gas-Injection Projects, Now in Operation	7-20	74
RALPH, HENRY D.		
Fight to Limit Imports Into United States Moving Toward Early Climax	1-19	29
Company Budgets Indicate Heavy Spending in 1950	1-26	157
Hewetson Says Imperial Plans No Exports to U. S.	1-26	162
Imports of Crude and Products Reached New High in 1949	1-26	193
Sunray-Barnsdall Deal	2- 9	45
Pending Merger of Barnsdall Oil Co. With Sunray	2-23	118
Five Major Texaco Refineries Closed With No Settlement Yet in Sight	4-13	59
Investigation of Phillips' Natural-Gas Operations Seems First Real Legal Test of FPC Authority Under Old Law	4-20	133
Compact Commission Views Imports	5-11	45
Speakers Tell A.G.A.'s Natural Gas Department Pressing Need of Industry Is for Better Public Relations Program	5-11	49
Gas Prices: Going Up	5-18	91
No One Knows How Far FPC May Go in Trying to Control Independent Producers and Fixing Field Prices of Gas	5-25	83
Grand Check Meeting in Oklahoma City	6-15	73
Service Eliminates Minimum Tender, Cuts Deduction for Shipping Losses, Offers to Segregate Different Crudes	7-20	56
Imports Up, Exports Down for First Half of 1950	7-27	192
Oil Reserves for War	8-10	40
I.P.A.A. Says More Steel Needed to Maintain Adequate Oil Supply	10- 5	121
Drilling Contractors Discuss the Steel Supply, Personnel Training, and Rising Costs	10-12	60
Preserving Economic, Political Conditions Under Which Oil Industry Grew Is Major Problem, A.P.I. Members Hear	11-16	181
Why Avgas Is Tight	11-30	40
Producers Prepare to Counter Price Freeze With Data on Rising Costs; One Study Shows Materials Up 17 Per Cent	12-28	32
Supreme Court Action Upholding Oklahoma Minimum Price Statute May Prompt Other States to Set Price of Gas at Well Head	12-28	36
RECTOR, NORMAN K.		
Improved Propane Extraction From Rich-Oil Stabilization	4-20	169
REDMAN, W. J.		
Don't Lose Your Hole Because of Slush-Pump Failure	11- 2	84
REED, J. A., II, and MEREDITH, H. H., JR.		
Allowable Loads on Unsupported Casing Column Under Action of Horizontal Wave Forces and Vertical Well-Head Loading	10-19	80
REED, J. E., and CARR, F. F.		
Effect of Temperature, Pressure, Standoff Upon Perfo-Jet Penetration	8- 3	69
REED, PAUL		
Interstate Completes Elk Basin Area Crude-Oil Pipe Line	1-19	50
Tabulation of Principal Domestic Crude-Oil Pipe-Line Construction Projects	1-26	229
West Coast Gas Line From Canada	2- 2	28
Pipe-Line Engineers Acclaim First Corrosion Course	3- 2	24
Pipe Liners' Big Year	3-23	159
Transco Will Use Steam-Turbine Centrifugal Compressors; May Have Unique Microwave Communication	3-30	59
Transcontinental, Mid-Valley Announce Plans for Microwave Communications Systems	4- 6	41
Trends in Pipe Lining at S.G.A. Galveston Meeting	4- 6	41
Toughest Pipe Line	4-13	66
Corrosion Problems Described at Annual N.A.C.E. Meeting	4-13	68
Pipe Lining on the Gulf Coast	6-22	194
Middle East Picture	7- 6	21
Abqaiq—World's Largest Producer	8- 3	42
Most-Hampered Trans-Arabian Line Starts Delivering Crude to Tankers in December	9- 7	46
Tapline Pipe Layers Surmount Problems in Traversing Mountains and Desert	9-14	109
A.P.I. Group Hears of Plans to Expand and Modernize Present Product Line Facilities	9-21	172
Construction of Sidon, Lebanon, Marine Terminal of Trans-Arabian Pipe Line Co.	9-21	210
Logistics Posed Real Problems During Building of Tapline	9-21	349
Public Views New Home of Service Pipe Line Co.	10-26	60
Mississippi-Pennsylvania Gas System With Capacity of 476 Million Cubic Feet Daily Is Planned by Texas Eastern	12- 7	56
Tapline's Pump Stations	12-28	71
REID, L. S., BOYD, W. L., and McCARTHY, EUGENE L.		
Water-Vapor Content of Essentially Nitrogen-Free Natural Gas Saturated at Various Conditions of Temperature and Pressure	1- 5	59
REIDEL, JOHN C.		
O. U. Short Gas Measurement Course Draws Record Group of Oil Men	4-20	143
Engineers Hear of New Instrument Developments, Practices	10-19	63
Electrical Applications in Oil Industry Discussed at A.I.E.E. Meeting	11- 2	34
RICE, F. E.		
Natural Gasoline Problems Those of Entire Petroleum Industry	4-20	155
RICHARDSON, CARL B.		
Regional Discussion of Pennsylvania Reefs of Texas (A.A.P.G. Abs.)	4-27	118
RIPPIE, CHARLES W.		
Trends in Treating	3-30	110
RITTENHOUSE, GORDON		
Red Beds and the Search for Oil (Abs.)	4-27	123
ROADS, W. E.		
Portable Automatic Sampler	12- 7	89
ROBERTS, D. L.		
Union Pacific Studies Methods of Designing Wells to Prevent or Minimize Damage From Earthquakes	11-23	62
ROBINSON, HAROLD A., and OSBORN, OLIVER		
Performance of Magnesium Galvanic Anodes in Underground Service (N.A.C.E. Abs.)	4-27	198

	Date	Page
ROE, R. P., and EVANS, R. L. Increased Oil Recovery From Injection Operations	9-28	68
ROSE, WALTER Capillary-Pressure Method of Interstitial Water Determination and Related Topics	10- 5	212
ROSENTHAL, MORRIS, and HAGER, KARL F. Water-Soluble Cutting Oils Used As Pickling Inhibitors	8-24	142
ROSENTHAL, MORRIS, ROSS, WERNER, and HAGER, KARL F. Simple, Rapid Method of Producing Thermocouple Junctions	7-13	87
ROSS, L. Evaluation of Factors Affecting the Layout of Refining Units	3-23	337
ROSS, WERNER, ROSENTHAL, MORRIS, and HAGER, KARL F. Simple, Rapid Method of Producing Thermocouple Junctions	7-13	87
ROUGH, R. L., ATCHISON, T. C., GRANT, B. F., DUVALL, W. I., and OBERT, L. Research on Shooting Oil and Gas Wells	6- 1	65
RUGH, K. W., and MATTOCKS, E. O. Sales of Liquefied Petroleum Gas Increased Last Year	1- 5	28
RUMBLE, F. H. Sag vs. Belt Length	8-10	83
SAMUELSON, DALE Mid-Valley Operates 1,000-Mile Microwave Relay System	9-21	302
SANDERS, F. HILL, JR. Large-Diameter River Crossings	11-16	329
SANNA, JOSEPH J. Diamond Drilling Operations	5-18	129
SAVIT, CARL H. Reflected Energy Variations Resulting From Small Changes in Shot Hole and Spread Locations (A.A.P.G. Abs.)	4-27	120
SCHMIDT, J. J., and VANDAVEER, F. E. Underground Storage and Migration of Natural Gas	7-27	270
SCHOPP, JAMES M. Plant Microfossils and Paleozoic Stratigraphy (Abs.)	4-27	178
SCOTT, GORDON N. Some Characteristics of Mastic-Type Pipe Coatings	7-27	283
SELK, ERWIN L. Types of Oil and Gas Traps in Southern Oklahoma (A.A.P.G. Abs.)	4-27	119
SEYFRIED, W. D., JONES, W. C., and CRUTHIRDS, A. V. Semimicrofractionation by Means of Spinner Columns	2-16	117
SCOTT, GORDON N. Field Performance of Modern Asphaltic Pipe Coatings	1-12	68
SHANNON, W. L. Block Method of Transporting by Pipe Line Several Grades of Oil, Gasoline, or Other Products	9-21	284
SHEPARD, FRANCIS P. Mass Movement of Sand Into Deep Water (Abs.)	4-27	177
SHEPHERD, FREDERICK, and WILSON, MALCOLM E., JR. Pegasus and Meadows Fields, Midland and Upton Counties, West Texas	4-27	140
SHERWOOD, PETER W. Effect of Plant Process Size on Capital Cost	3- 9	81
SHIMKIN, DEMITRI B. Is Petroleum a Soviet Weakness?	12-21	214
SHOCK, D. A., and SUDBURY, J. D. Corrosive Environments and Methods of Mitigation in Producing Sour Crude	6- 8	73
SHROCK, ROBERT R. Some Physical Aspects of Ancient Reef Complexes (A.A.P.G. Abs.)	4-27	118
SIMS, E. R., JR., and SURBER, N. C. Electric Correlation Drilling in the Rocky Mountains	9- 7	86
SKEELS, D. C. Geophysical Data on the North Carolina Coastal Plain (A.A.P.G. Abs.)	4-27	120
SKELTON, W. E., BEST, J. C., and GROSS, H. H. Furfural Refines Gas Oil	3-23	211
SLOBOD, R. L., CAUDLE, B. H., and BROWNSCOMBE, E. R. Laboratory Determination of Relative Permeability (Part 1)	2- 9	68
Laboratory Determination of Relative Permeability (Part 2)	2-16	98
SLOSS, L. L., DAPPLES, E. C., and KRUMBEIN, W. C. Paleogeographic Distribution and Classification of Reefs (A.A.P.G. Abs.)	4-27	118
SMITH, B. B. What Do You Know About Surface-Casing Failures?	10-26	78
SMITH, J. H. Performance of Thermal Poly Transeconomizers	8- 3	45
SMITH, NEAL J. The Case for Gravity Data from Boreholes (S.E.G. Abs.)	4-27	123
SMITH, NEAL J., and CLAUDET, A. P. New Method for Measuring Seismic Velocities	9-14	92
SMITH, S. S. Remotely Controlled Pipe-Line Stations	10-26	82
SMITH, S. S., RUSH, E. H., and CURRY, W. J. Internal and External Corrosion Experience in Shell's Products Pipe Lines (N.A.C.E. Abs.)	4-27	190
SPAIN, H. H., WILLIAMS, MILTON, SULLIVAN, R. J., and BUCHAN, R. C. Dehydration of Natural Gas	4- 6	74
SPANGLER, C. V., BODLE, W. W., and GRANQUIST, W. T. New, Safe, Practical Storage and Transportation Method for Light Hydrocarbons	4-20	170
SPELLER, F. N., and LaQUE, F. L. Water-Side Deterioration of Diesel Engine Cylinder Liners (N.A.C.E. Abs.)	4-27	190
SPENCER, C. E., ZILM, F. W., and HILL, A. M. Electric-Arc Welding of Cast Iron	9-21	232
SPENCER, R. K., and KAYE, H. Acid Sludge Fuels Used in Steam Generation	2- 9	80
STANLEY, C. P. Processing Methods in a Gasoline Plant to Obtain 85 Per Cent Propane Recovery	4-20	157
STARK, E. L. Control Instrumentation for Light-Ends Fractionation	1-19	62
STEPHENSON, JAMES F. Cost, and Savings Effected by Cathodic Protection for a Short Section of Line	9-21	240
STEPHENSON, M. Subsurface Oil-Well Flow Meter	5-11	96
STERNE, WILLIAM P. 9,000 Miles of Lines Now Building in All Parts of World	7-27	202
Peat Bogs Present Problems in Stringing and Laying Pipe for Lakehead Line in Minnesota Swamps	8-10	46
STEVENS, L. B. Pure Constructs New G.C.B. Plant	3-16	76
STEWART, ARTHUR D. World Supply-Demand Situation Now Viewed With More Optimism	12-21	192
STEWART, L. D. The Why, How, and Dollars and Sense of Waste-Heat Recovery	7-13	70
STIVERS, F. O. Instruments for Pipe-Line Pressure-Surge Studies	10-12	116
STORMONT, D. H. Ranching to Oil; Scurry County Takes Change in Stride; 180 Wells Drilling	1-12	37
Gas Price Minimums May Come Before Texas Legislature in 1950	1-12	38
Cheaper Insurance for Oil Industry	1-19	41
Scurry County's New Reef Fields Largest Addition to Nation's Reserves Since East Texas	2- 2	46
Texas Thought Ready to Junk MER's	2- 9	54
Texas Railroad Commission Faces Decision on MER as Basis for Setting Production Allowables	2-16	75
Flow Line Paraffin Removal	2-16	91
Critical Wildcats in Scurry County Area	2-23	116
Induflux . . . New Method for Testing Fatigue in Sucker Rods	3-16	84
Fork Lift Trucks	3-30	90
Tool Is Designed to Save Earthquake-Damaged Wells	4-13	56
Subsurface Pressure-Temperature-Flow Conditions Recorded on a Single Run	4-13	80
Imports Tax Asked by I.P.A.A.	5-11	48
Petroleum Demand Forecast	5-11	95
California Major-Company Officials Issure Denials of Government's Charges	5-18	103
Competitive Marketing Difficulties Due to Abnormal Jump in Productive Capacity, Petersen Tells A.P.I. Meeting	5-18	104
Gas-Pipe-Line Study at P.C.G.A. Annual Conference	6- 1	39
Shut-In Heavy-Crude Wells, Reopened, Result—Gain in California's Production; Heavy-Crude Prices Raised	8- 3	29
SoCal Gas Co. Uses Human Relations to Create Good Will Out of Disruptive Job of Pipe Lining Through City Streets	8-17	62
Richfield Oil Corp. Will Soon Complete Final Leg of New Trunk Line to Move Cuyama Field Crude to Refineries	8-17	64
General Petroleum Corp. Reuses Old Hole in Offshore Drilling	8-24	98

	Date	Page
Cuyama Discovery	8-31	43
Nondestructive Inspection Locates Minute Surface Cracks, Flaws in Metals	9- 7	69
New 83-Mile Loop Completed on Texas-California 30-in. Line	9-28	100
Overdrilled Placerita Canyon Nears Exhaustion	10-12	82
Papers Presented at A.I.M.E. Devoted to Detailed Studies of Oil Reservoirs, Drilling Fluids	10-19	66
New Oil Provinces	10-26	62
Southern California Gas Demands Can Be Met with Storage, Imports	11- 2	40
Who's Who in California Oil	11- 9	A-21
"Super Inch" Gas Line Is Completed	11- 9	A-54
Natural-Gasoline Industry's Technical Advances Over Past Quarter Century Discussed at C.N.G.A. Silver Anniversary Meeting	11-16	188
Coalinga Nose Unit to Be in Full Operation by First of Year	11-23	51
800-Well Drilling Program in California Planned by Shell Oil Co.; Shell Development Opens Expanded Laboratories	11-30	44
California Research Corp. Investigates Completion Methods, Drilling-Fluid Effects With Experimental Rig	12-14	61
Los Angeles Firm Seeks Approval of 24-in. Crude Line and Parallel Products Carrier From Texas to West Coast	12-21	145
Negotiations Under Way for Purchase of Three California Oil Firms for a Consideration of More Than $55,000,000	12-28	39
SUDBURY, J. D., and SHOCK, D. A.		
Corrosive Environments and Methods of Mitigation in Producing Sour Crude	6- 8	73
SULLIVAN, R. J., WILLIAMS, MILTON, SPAIN, H. H., and BUCHAN, R. C.		
Dehydration of Natural Gas	4- 6	74
SUPPLE, G. H., and NICHOLSON, CHARLES		
How to Improve A.P.I. Code 25	11-16	346
SURBER, N. C., and SIMS, E. R., JR.		
Electric Correlation Drilling in the Rocky Mountains	9- 7	86
SUTHERLAND, E. K., and HANSON, D. D.		
Platforming of Natural Gasoline	4-20	177
SUTTER, R. C., and BUTLER, JR., C. A.		
Pumping Stuffing Box for Obnoxious or Inflammable Liquids	8-17	117
SWAMINATHAN, V. S.		
Construction on Shell Haven Refinery on Schedule	6-15	118
Redesigning Shell's Heysham Refinery	6-29	71
SWEENEY, WILLIAM J.		
Progress in Petrochemistry—A Technical Report	11- 2	74
SWINDELL, R. A., and LAMBERGER, E. H.		
Power Factor Correction on a Pumping Lease	2- 9	71
TALIAFERRO, D. B., JOERS, J. C., and GRANDONE, P.		
Water Flood in Neosho County, Kansas (Part 1 of 4 parts)	6-29	60
Keas Drilling Co. Water Floods Bartlesville Sand in Neosho County, Kansas—700 Ft. (Part 2 of 4 parts)	7- 6	46
Pilot Water Flood of Cox and Hamon Has Unusual Layout of Equipment (Part 3 of 4 parts)	7-13	82
Deep Rock Water Floods 304 Acres (Part 4 of 4 parts)	7-20	91
TELLINGTON, W. J.		
Seismic Work Problems in the Canadian Bush Country	4-27	114
THOMAS, W. E.		
Magnetic-Particle Inspection—Applications in the Petroleum Industry	6- 8	53
THOMAS, E. JACKSON		
Fluid Catalytic Cracking of High-Sulfur Stocks With Natural Catalysts	3-23	221
THOMPSON, H. F.		
L.P.G. Production at Sinclair's Marcus Hook Refinery	8- 3	66
TODD, RAYMOND		
Details of Conversion of Atmospheric Cooling Tower to Induced-Draft Operation	1- 5	46
TOMLINSON, C. W.		
Freedom and Petroleum Geology	4-27	109
TRAIL, J. A.		
Selection, Care, Installation of Antifriction Bearings	12- 7	94
TREXEL, C. A.		
Marine Platforms for Offshore Drilling	12- 7	76
TUTTLE, R. B.		
1950 Looms As Year of Strong Refinery-Expansion Activity	1-26	209
Tabulation of U. S. Natural Gas Processing Plant-Building Projects	1-26	218
Crude-Oil Capacity at Midland Cooperative Plant Stepped Up 50%	2-16	105
U. S. Refineries Have Crude-Oil Input Capacity of 6.75 Million Barrels	3-23	302
Refinery Capacity Being Upped 105,000 Bbl. by Plants Building and Authorized	3-23	326
Projects Now Considered Will Increase Input Gas Capacity 100,000,000 Cu. Ft.	4-20	205
New Houdriflow Cracking Unit Gives Tide Water Flexibility in Handling Variety of Mid-Continent or Sour Crudes	6-15	74
Refinery Engineers Hold Seminar on Methods of Using, Measuring, and Recovering Large Quantities of B.t.u.'s	6-15	78
Refinery Capacity Still Headed Upward; More Plants Modernizing	7-27	195
Construction Report on Natural-Gasoline and Petrochem Plants	7-27	201
Switch-Button Control at Basin-Ozark System Terminal	8-17	82
"Packaged" Gasoline Plant	9- 7	78
Oklahoma A.I.Ch.E. Group Studies Latest Developments in Natural-Gas and Refinery-Processing Operations	10-12	71
S.A.E. Group Reviews Data on Aircraft and Diesel Fuels, Antiknock Progress, Use of L.P.G. Products in Motor Buses	11-16	193
ULMER, R. C., and LOWENTHAL, E. A.		
Modern Trends in Industrial Water Treatment	4-13	92
Aerial Surveys Speed Mapping Work on Transco Project	5- 4	141
VAGTBORG, HAROLD		
The Gulf Coast in the Next 25 Years	6-22	324
VAIDEN, JAMES W.		
Automotive Designers Can Aid in Conservation	4-20	155
VANDAVEER, F. E., and SCHMIDT, J. J.		
Underground Storage and Migration of Natural Gas	7-27	270
VAN DYKE, ORIEN W.		
Mud Materials as Tools for the Drilling Industry	7-27	220
VIETTI, W. V.		
Liquefied Petroleum Gas as a Competitive Fuel	4-20	152
VILAND, C. K.		
Gravity Separation of Inactive Catalyst	11-30	74
VINCENT, R. R., and HUFFMAN, K. P.		
Water-Flood Operations in Illinois, Indiana, Kentucky, Ohio, Michigan, and West Virginia	6- 1	57
VITTER, A. L., JR.		
Status Report on Offshore Drilling in Louisiana	6-22	221
VOIGT, M. J., and HARDIE, B. G.		
Use of Periodicals in Petroleum Research	5-18	121
VON CROY, STEFAN, and VALERIUS, CLAUDE N.		
Case History of Benton Field, Bossier Parish, Louisiana (S.E.G. Abs.)	4-27	120
VOSS, N. A., and NORDELL, ESKEL		
Water Conditioning for Oil-Field Flooding Operations	11- 9	174
WADE, O. W.		
Surface Potential Method of Corrosion Survey on Pipe Lines (N.A.C.E. Abs.)	4-27	198
WALSTROM, JOHN E.		
Optimum Use of Coring, Electric Logging, and Other Testing Methods in Exploratory Wells	11-16	298
WATKINS, F. M., and FELDMAN, K. T.		
New Corrosion Inhibitor Gets Job Done	11-16	340
WATKINS, J. WADE, ARTHUR, C. E., and WILLETT, JR., F. R.		
Conditioning Water for Subsurface Injection	8-17	120
WATSON, JAMES C.		
West Texas Oil—1950	4-27	132
WEAVER, BILL R.		
Acidization in the Permian Basin	3- 9	73
WEBER, GEORGE		
Coal-to-Oil Pilot-Plant Operations Suspended	1- 5	23
Sun to Put Expanded Toledo Refinery on Stream March 1	1- 5	30
Flexibility, Efficiency Feature Sohio's Modernized Lima Refinery	1-12	51
Saving on Plant Maintenance	1-19	31
Lube-Oil Rating	2- 9	53
Atlantic's New Pilot-Plant Building	2-16	79
Texas Co. Reveals Successful Testing of Knock-Free Engine	3- 2	21
Platforming Report	3- 2	22
Radio Network Proves Successful in Major Refinery	3- 2	46
Transmission Fluids	3- 9	51
Engineers Find Turbulence in Cylinder Head Stops Engine Knock and Improves Octane Rating	3-16	58
Optimism in Refining	3-30	66
Old Dutch Refining Co. Finds Platforming Process Ideally Suited to Its Needs	4- 6	62
First Commercial Synthetic Benzene Moving Out of Texas City's Pan American Refinery	4-13	60
Socony-Vacuum Revamps Lube-Packaging Facilities at Paulsboro	4-13	78
Climbing Octanes	4-27	63

	Date	Page
New Military Lube-Oil Specifications Indicate Addition of Another Grade Which Must Be Manufactured, Distributed	4-27	68
Corrosion, Waste Disposal, Refinery Maintenance Problems Highlight Discussions at Annual Refining Division Meeting	5- 4	55
Perth Amboy Refinery Soon to Handle 50,000 Bbl. Daily	5- 4	69
Current Refining Position Sound, Refiners at A.P.I. Meeting Agree	5-11	47
New Modified Thermofor Catalytic Cracking Process	5-11	53
War-Products Plant Adapted to High Distillate Yield	5-11	66
New Company Considering 400-Mile Products Line in New York	5-25	94
Promising Process Offers Gasoline in Pellet Form	5-25	94
Storage and Supplemental Gas Sources Studied by A.G.A.	6- 1	34
Chemist Says Ultrasonics Applicable to Processing	6- 1	35
Independent Union Defeats C.I.O., A.F.L. at Eagle Point	6- 8	37
Reduced Crude Decarbonization	6- 8	54
Octanes Versus Engines	6-15	77
New Lube Classification	6-22	155
Packaged Cracker for Smaller Refineries	6-22	158
85 Per Cent of Nation's Capacity for Petrochemicals Concentrated Along Gulf Coast	6-22	171
Sinclair Buys Wood River Plant, Products Pipe Line	7- 6	23
A.S.T.M. Raises Maximum Vapor Pressure for Gasoline in Northern States During Winter Months	7-13	47
Octane Race Halted	7-27	159
New Engine-Wear Test	7-27	162
National Lube Capacity at All-Time High, Plant Survey Shows	7-27	190
Octane for War	8- 3	25
Venezuela's First Lube-Oil Plant	8- 3	31
Index for Type A Fluids Lowered by General Motors	8-10	44
Ion Exchange	8-10	67
Spectroscopy Expands Usefulness to Oil Industry	8-17	110
T.C.C. Liquid-Feed Operations	8-31	54
How Refiners Can Meet Military Fuel Requirements and What May Be Left for Civilians Discussed at Atlantic City Forum	9-21	169
Avgas Supply Problem	10- 5	125
Natural Gas Reserve Figures Revised	10- 5	127
Commercial Aviation Fuel to Be Changed	10-12	62
Refiners Review Possible Processes for Making Benzol and Get Ready for an Interplant Program as With Alkylate	10-19	60
Natural Clay Used as Catalyst for Lube-Oil Treating and Fluid Cat Cracking in Two Eastern Sinclair Plants	10-19	78
Industry Looks for Continued High Demand for Lubes, Reversing Its Spring Pessimism	11- 2	33
Texaco Opens Expanded Research Facilities at Beacon, N. Y., Which Provide for Engineering, Mechanical Study	11- 9	55
Shell Orders Two U.O.P. Units With Capacity of 15,000 Bbl. Daily Each for Wood River, Houston Refineries	11-23	43
More Than 25 Oil Companies Are Engaged in Various Phases of Petrochemical Industry, With Trend Continuing Upward	11-23	47
Data Reveal That Use of Vanadium in Residual Fuel Oil Contributes to Furnace, Boiler Corrosion, A.S.M.E. Told	11-30	48
A.S.M.E. Discusses Orifice Metering, Austenitic Steels, Synthetic Lubricants, at Seventy-First Annual Meeting	12- 7	63
Petroleum-Coke Study Tests Prove That Product Can Be Substituted for Coke Made From Coal for Firing Spreader Stoker Type Boilers	12-14	64
Improved Alkylation Process	12-28	78
WEBER, GEORGE, and McCASLIN, LEIGH S., JR.		
Radio Use in Petroleum Operations Doubles in Past Year	8-24	91
WEIL, A. H.		
Not the End of the Road for Natural Gasoline	4-20	156
WENGERD, SHERMAN A.		
Reef Sedimentation—Majuro Atoll (A.A.P.G. Abs.)	4-27	118
WEST, JAMES A., and JOHNSTON, KENNETH B.		
Water Flooding in Weber Pool—Washington County, Oklahoma (Part 1)	12- 7	79
Water Flooding in Weber Pool—Washington County, Oklahoma (Part 2)	12-14	90
Water Flooding in Weber Pool—Washington County, Oklahoma (Part 3)	12-28	87
WHERRY, T. C., and CRAWFORD, F. W.		
Continuous Analysis and Control of Process Stream Compositions With Automatic Infrared Analyzers	3-23	272
WHITESIDE, F. C.		
Continental Oil Co. Installs Remote Reading Gages at Ponca City Tank Farm	9-21	297
WHORTON, L. P., and KIESCHNICK, W. L., JR.		
Oil Recovery by High-Pressure Gas Injection	4- 6	78
WILCOX, Q. L.		
New Oriskany Sand Gas Pool	11-23	91
WILLETT, JR., F. R., ARTHUR, C. E., and WATKINS, J. WADE		
Conditioning Water for Subsurface Injection	8-17	120
WILLEY, M. B.		
New, Safer Specifications Will Result From Experience in 92-M.P.H. Blow	2-23	153
WILLIAMS, CLAUDE A.		
The Story of Transcontinental	5- 4	81
WILLIAMS, C. R.		
Underground Storage Would Solve L.P.G. Difficulties	4-20	153
WILLIAMS, MILTON, SPAIN, H. H., BUCHAN, R. C., and SULLIVAN, R. J.		
Dehydration of Natural Gas	4- 6	74
WILLIAMS, NEIL		
South Ceres Pool Only Two Wells Wide, Now 7½ Miles Long	4-20	138
Unitized Town-Lot Field Has High, Consistent Output	6- 8	35
2,329 Rotary Rigs Operating in U. S., Western Canada	7-27	177
WILLIAMS, ROGER W., and NAUGLE, JOHN M.		
Vacuum Distillation and Vis-Breaking	3-23	241
WILLSON, C. O.		
S.A.E. Meeting Defends Additives	1-12	36
Buyers' Market	4-27	77
Present Program to Double Capacity of Great Lakes Pipe Lines	5-25	88
Gas for Chicago	6-29	39
Mid-Valley Takes Advantage of Opportunities for Savings in Investment and Operation in Building Big-Inch Carrier	7-20	52
WILSON, JOHN F.		
Analysis of a High-Sulfur Cracked Distillate (A.P.I. Abs.)	5-25	147
WILSON, MALCOLM E., JR., and SHEPHERD, FREDERICK		
Pegasus and Meadow Fields, Midland and Upton Counties, West Texas	4-27	140
WINFIELE, T. M.		
Louisiana's Outlook Bright	6-22	289
WINTRINGHAM, JOHN S.		
Improving Road Antiknock Rating of Fuels	3-23	284
WISE, R. B.		
Cooling-Water Slime	2-23	170
WRIGHT, J. C.		
New Displacement Method of Measuring Gas Flow Through Pipe Lines	3-16	99
YAPUNCICH, JOHN G.		
Tubing Corrosion	4- 6	68
YOUNG, F. S.		
Aspects of Gas Heat Exchangers As Applied to Transmission-System Problems	2- 9	84
YOUNG, H. D.		
Methods for Estimating Cetane Number	6- 1	81
ZILM, F. W., HILL, A. M., and SPENCER, C. E.		
Electric-Arc Welding of Cast Iron	9-21	232

950

Page

70
90
57
272
297
78
91
120
158
81
153
74
138
35
177
241
36
77
88
39
52
147
140
280
284
170
99
68
84
81
232